Oak Spring Garden Library

Vol II

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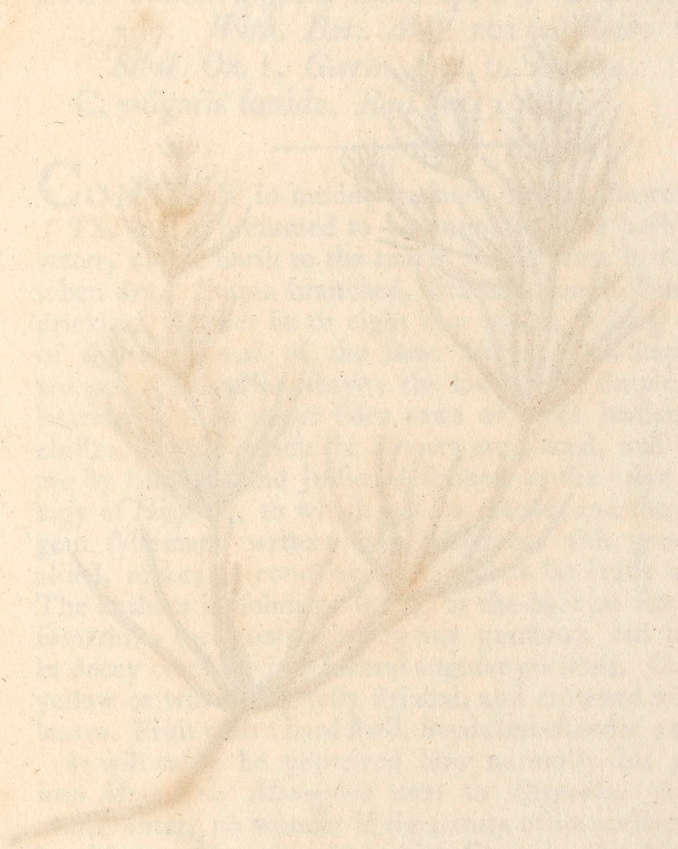
Monandria



1796 Published by J.t Sowerby

CHARA vulgaris.

Common Chara.

MONANDRIA Monogynia.

GEN. CHAR. *Cal.* none. *Cor.* none. *Anthera* ſeſſile. *Style* none. *Berry* with many ſeeds.

SPEC. CHAR. Stem and leaves rough, ſtriated, without prickles. Leaves and leaflets tapering, channelled above, not jointed.

SYN. Chara vulgaris. *Linn. Sp. Pl.* 1624. *Hudſ. Fl. An.* 397. *With. Bot. Arr.* 1015. *Relh. Cant.* 345. *Sibth. Ox.* 1. *Gærtn. Sem. v.* 2. *t.* 84.

C. vulgaris fœtida. *Raii Syn.* 132.

COMMON in muddy ſtagnant ditches, flowering in July. The root is preſumed to be annual. The herb floats under water, and is harſh to the touch, fœtid; very brittle and gritty when dry. Stems branched, ſtriated, rough, but deſtitute of prickles. Leaves ſix or eight in a whorl, as long as the joints of the ſtem, and of the ſame texture, awl-ſhaped, narrow, pointed, channelled above; the lower ones ſimple; the others bearing on their upper ſides rows of erect leaflets, four in a cluſter, among which the flowers are placed, and theſe leaflets are by Linnæus and Juſſieu deſcribed as the calyx. The analogy of *Hippuris*, to which (as Dr. Stokes and the moſt intelligent ſyſtematic writers have obſerved) this genus is nearly allied, makes us conceive the flower to be really a naked one. The anthera is ſolitary, ſitting at the baſe of the germen (or ſometimes unaccompanied by any germen), red or yellowiſh, in decay cracking into ſeveral angular portions. Germen ovate, yellow or whitiſh, ſpirally ſtriated, and crowned with five little leaves. Fruit with a hard ſhell. Seeds imbedded in a reddiſh pulp.

It will eaſily be perceived how naturally this genus comes into *Monandria Monogynia* next to *Hippuris*. As it flowers under water, no wonder if the nature of its anthera and pollen be obſcure; but we cannot with Gærtner (ſee his preface, p. 33.) doubt the part we have deſcribed to be the anthera.

It is the opinion of our ingenious friend Mr. Correa, that the impregnation may be performed within the ſtem by a clandeſtine communication between the anthera and germen, and alſo that the five leaves which crown the germen are not (as has been ſuppoſed) the ſtigma, but the tips of a five-leaved calyx cloſely enfolding that part in a ſpiral manner. This merits a farther enquiry.

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Chara hispida — Prickly Chara

Monandria Monogynia

Gen. Ch. Cal. 0. Cor. 0 Anthera sessile
Style none. Berry with many Seeds

Spec. Ch. Prickles on the Stem bristly,
in Clusters.

Chara flexilis — Smooth Chara

Monandria Monogynia

Gen. Cal. o. Cor o. Anthers o. pile

Style o. Berry with many seeds

Spec. Smooth transparent without

Prickles leaves cylindrical blunt

with a minute point often branched

We have not this C. from the neighbourhood of Yarmouth It is supposed to be an annual & seems dicecious

The whole plant is quite smooth green & pellucid apparently not liable to be encrusted like the Vulgaris & hispida

Stem round branched of an equal thickness & hollow Leaves whorled shaped like the branches & often subdivided

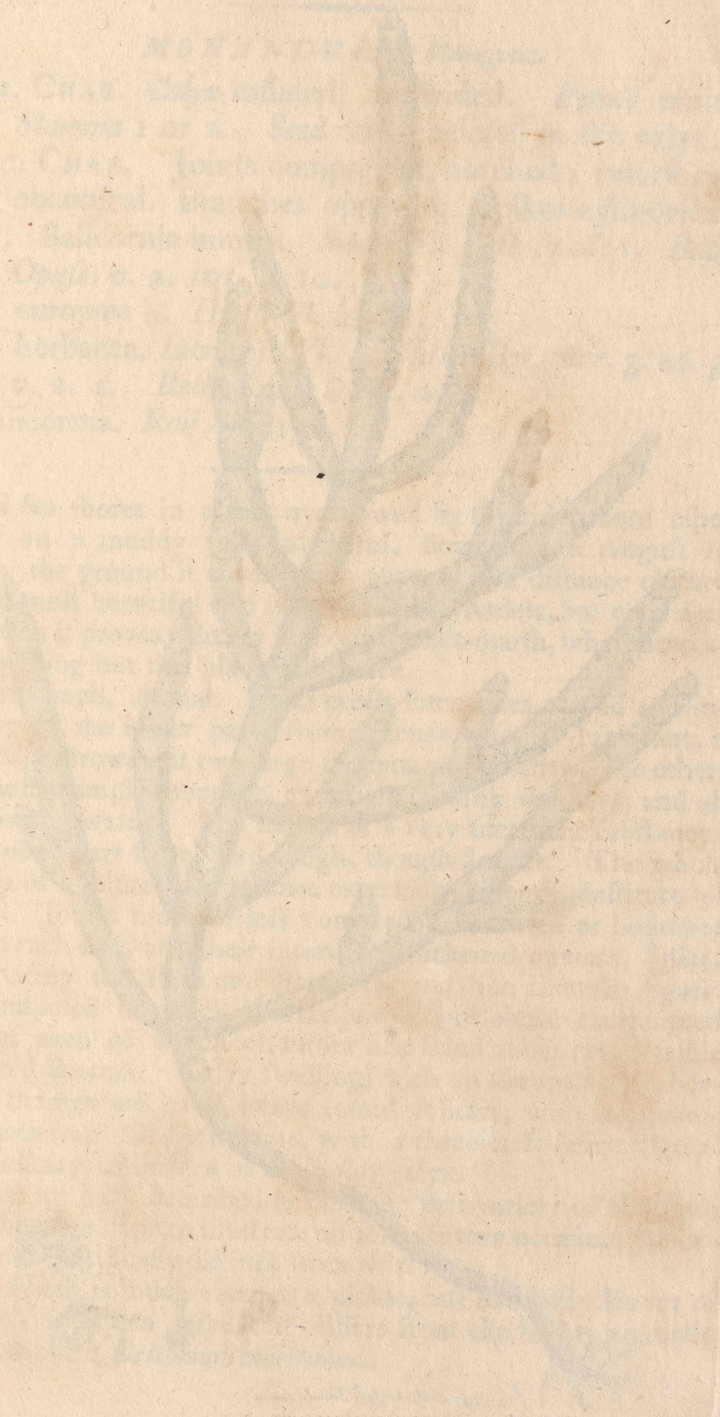
They are also like the stem & branches jointed with a few remote contracted joints or transverse partitions The extremities are blunt tipped with a little point

Anthers in the forks of the upper leaves solitary curiously cracked or reticulated

Gomers in similar situations on a dif
ferent Plant ovate spirally striated some
times 2 together

The Revd Mr Williams has communicated
to us from some Pools near Shrewsbury
along with this a much larger Variety
which we at first judged a distinct Species
but some Specimens of an intermediate
size being procured prove it to be only
a Variety

Salicornia 1-)



July 1.1797 Published by J. Sowerby London.

SALICORNIA annua.

Annual Samphire or Jointed Glaſswort.

MONANDRIA Monogynia.

GEN. CHAR. *Calyx* inflated, undivided. *Petals* none. *Stamina* 1 or 2. *Seed* one, encloſed in the calyx.

SPEC. CHAR. Joints compreſſed, notched; interſtices obconical. Branches oppoſite. Spikes cylindrical.

SYN. Salicornia annua. *Smith Fl. Brit. in ed.* 1. *Baſt. Opuſc. v.* 2. 105. *t.* 10.

S. europæa *α*. *Hudſ. Fl. An.* 1.

S. herbacea. *Linn. Sp. Pl.* 5. *With. Bot. Arr.* 3. *ed.* 3. *v.* 2. 4. *Relh. Cant. Suppl.* 2. 1.

Salicornia. *Raii Syn.* 136.

ON ſea ſhores in places overflowed by the tide, more eſpecially on a muddy ſoil, plentiful, flowering in Auguſt or later; the ground it covers often appears at a diſtance clothed with a moſt beautiful turf interſected by rivulets, but on a near approach it proves a dreary inacceſſible ſalt-marſh, where ſcarcely any thing but this plant will thrive.

Root ſmall, annual. Stem erect, ſometimes curved and inclining in the lower part, from whence alſo, if luxuriant, it generally throws out two large compound branches; the others are moſtly ſimple, oppoſite, each pair croſſing the next, and all pointing upwards. The bark is of a very ſucculent ſubſtance; the woody part ſtrong and tough, though ſlender. The whole herb is of a jointed appearance externally, ſmooth, deſtitute of leaves. Joints more or leſs compreſſed, notched or hollowed out on each ſide, and their interſtices thickened upward. Spikes terminating the ſtem and branches, and like them in figure, but compoſed of much ſhorter joints, juſt above the pointed part of each of which on either ſide ſtand about three ſeſſile cluſtered flowers. Calyx ſwelling, with an abrupt entire border. Stamen we have always found ſolitary, with an incumbent anthera. Germen ovate, with a three-cleft ſeſſile ſtigma. Seed ſolitary, imbedded in the pulpy calyx.

What we have deſcribed is only the firſt variety of Hudſon; the others we hope to illuſtrate on ſome future occaſion, believing them ſpecifically diſtinct from this.

This herb is much eaten as a pickle, but has little flavour of its own; in which reſpect it differs from the highly aromatic true Samphire, *Crithmum maritimum*.

HIPPURIS vulgaris.

Mare's-tail.

MONANDRIA Monogynia.

GEN. CHAR. *Cal.* obſolete, undivided. *Cor.* none. *Stigma* ſimple. Seed 1, inferior.

SPEC. CHAR. Leaves whorled, linear.

SYN. Hippuris vulgaris. *Linn. Sp. Pl.* 6. *Sm. Fl. Brit.* 4. *Hudſ.* 2. *With.* 5. *Hull.* 2. *Relh.* 1. *Sibth.* 1. *Abbot.* 1. *Curt. Lond. faſc.* 4. *t.* 1. *Dickſ. H. Sicc. faſc.* 2. 1.

Limnopeuce. *Raii Syn.* 136.

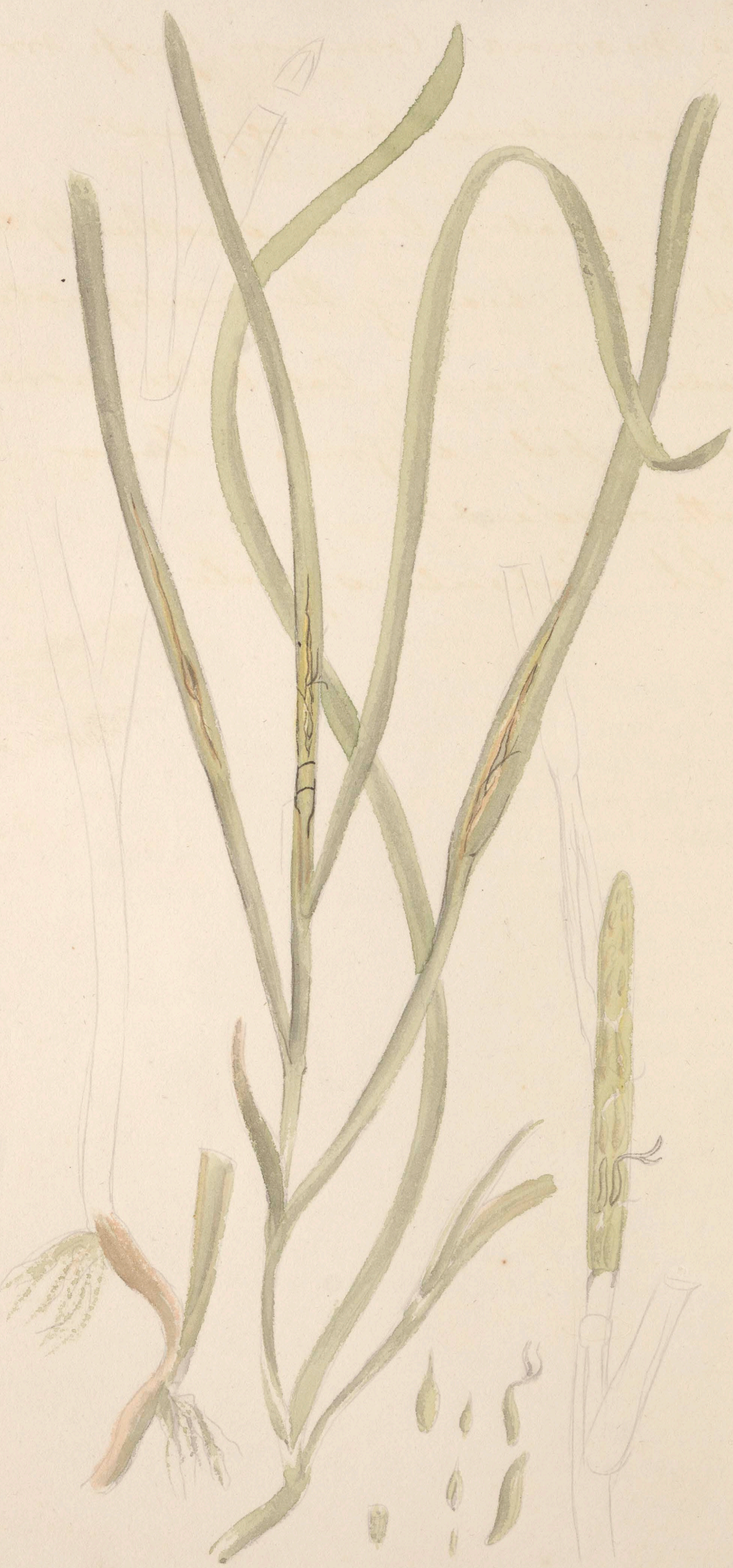
IN ditches, pools, and the borders of ſlow ſtreams this plant may be ſeen in the months of May and June, riſing to the height of 10 or 12 inches ſtraight above the ſurface of the water, and flowering abundantly. Afterwards its whorled perennial roots, and leafy procumbent branches, only are to be found in the mud at the bottom. It is not indeed a very common plant, but grows in ſeveral parts of Norfolk and about London, ſeeming to prefer a gravelly ſoil.

Stem perfectly ſimple, round, ſmooth, reddiſh, ſet with numerous whorls of linear entire ſmooth leaves, about 8 or 10 in each whorl. Flowers ſeſſile, one in the boſom of each leaf, ſmall, and of the ſimpleſt ſtructure; for they conſiſt of only an oval germen, crowned with an almoſt imperceptible margin or calyx, without a corolla, and terminating in a ſimple, thread-ſhaped, pointed ſtyle, by whoſe ſide ſtands one ſimple ſtamen with a two-lobed anthera. When young this anthera is large and reddiſh, ſitting cloſe to the germen, as repreſented in our plate. The germen becomes a ſingle naked ſeed.

The herb in its winter ſtate, immerſed in the water, with longer, thick-ſet, pellucid leaves, has been deſcribed by Dillenius in Ray's *Synopſis* as a remarkable variety; but it depends entirely on the time of the year, and is therefore not to be deemed a variety.

Hippuris 2

Zostera

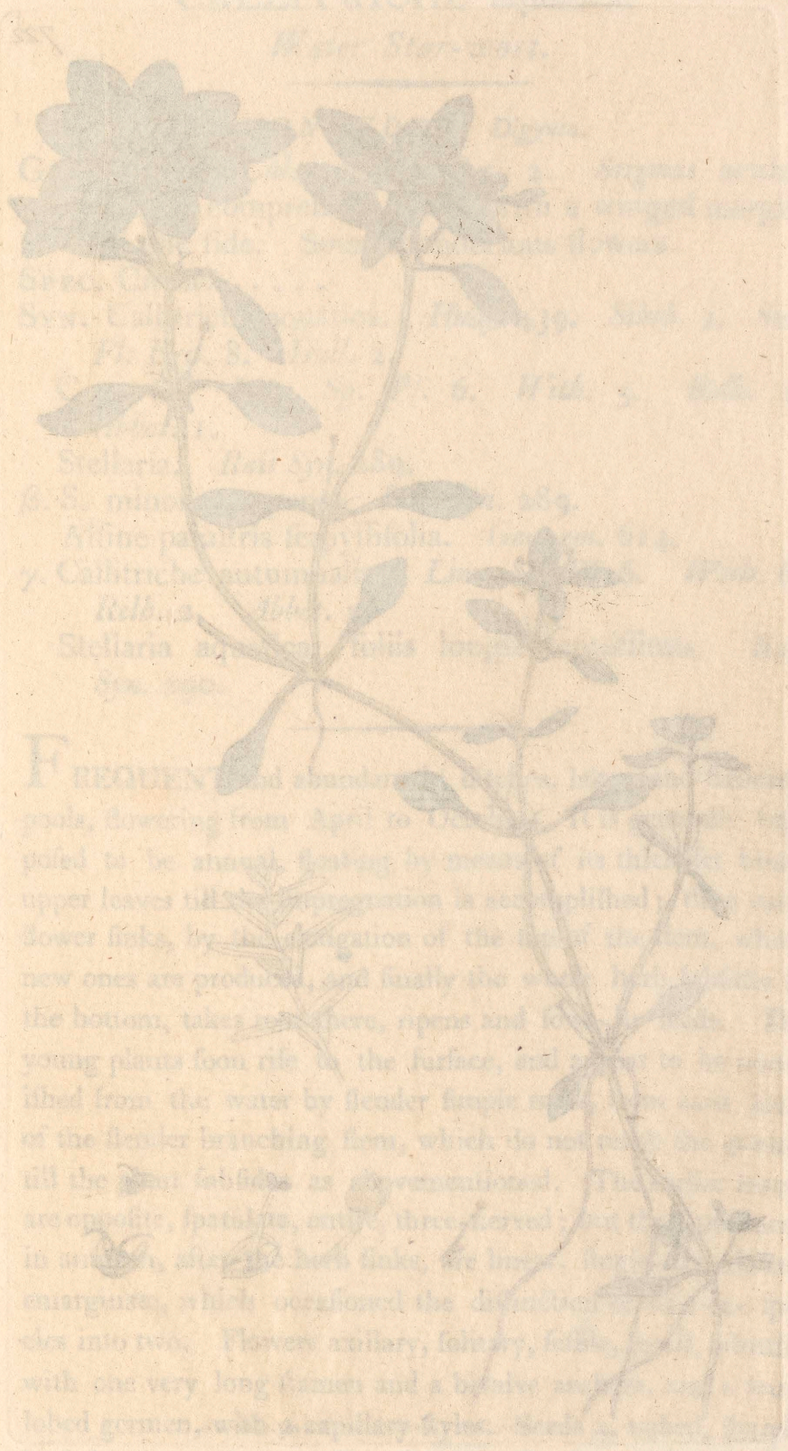


Zostera marina. Common Grass wrack

Monandria Monogynia

Gen. Ch. Spadix linear sheathed by the base of the leaf bearing the fructification on 1 side in 2 ranks. Cal. & Cor. none. An. three sessile. Stigmas 2 linear. Caps. with one seed

Spec. Ch. Capsules sessile



722.

Amstelaedami Sumptibus J. Sluyterij Laudem.

CALLITRICHE aquatica.

Water Star-wort.

MONANDRIA Digynia.

GEN. CHAR. *Cal.* none. *Pet.* 2. *Stigmas* acute. *Seeds* 4, compreſſed, naked, with a winged margin on one ſide. Some monoecious flowers.

SPEC. CHAR. . . . . .

SYN. Callitriche aquatica. *Hudſ.* 439. *Sibth.* 2. *Sm. Fl. Brit.* 8. *Hull.* 2.

C. verna. *Linn. Sp. Pl.* 6. *With.* 5. *Relh.* 2. *Abbot.* 1.

Stellaria. *Raii Syn.* 289.

β. S. minor et repens. *Raii Syn.* 289.

Alſine paluſtris ſerpyllifolia. *Ger. em.* 614.

γ. Callitriche autumnalis. *Linn. Sp. Pl.* 6. *With.* 6. *Relh.* 2. *Abbot.* 2.

Stellaria aquatica, foliis longis tenuiſſimis. *Raii Syn.* 290.

FREQUENT and abundant in ditches, lakes, and ſtanding pools, flowering from April to October. It is generally ſuppoſed to be annual, floating by means of its thick-ſet broad upper leaves till the impregnation is accompliſhed; then each flower ſinks, by the elongation of the top of the ſtem, where new ones are produced, and finally the whole herb ſubſides to the bottom, takes root there, ripens and ſows its ſeeds. The young plants ſoon riſe to the ſurface, and appear to be nouriſhed from the water by ſlender ſimple roots, from each joint of the ſlender branching ſtem, which do not reach the ground till the plant ſubſides as abovementioned. The earlier leaves are oppoſite, ſpatulate, entire, three-nerved; but thoſe produced in autumn, after the herb ſinks, are linear, ſingle-nerved, and emarginate, which occaſioned the diſtinction of this one ſpecies into two. Flowers axillary, ſolitary, ſeſſile, ſmall, whitiſh, with one very long ſtamen and a bivalve anthera, and a four-lobed germen, with 2 capillary ſtyles. Seeds 4, naked, ſharply keeled. Some flowers often want the ſtamen, others the germen and ſtyles; which led Mr. Hudſon to remove this genus to the *Polygamia*, a claſs which if thus rigidly attended to would ſwallow up half the reſt.

Callitriche 3

Normandie

[8]

LIGUSTRUM vulgare

Privet.

Augt 1809 Published by Sr. Laverby London.

LIGUSTRUM vulgare.

Privet.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* 4-cleft. *Berry* ſuperior, of 2 cells, with 2 *ſeeds* in each.

SPEC. CHAR. Leaves elliptic-lanceolate, obtuſe, with a little point.

SYN. Liguſtrum vulgare. *Linn. Sp. Pl.* 10. *Sm. Fl. Brit.* 12. *Hudſ.* 3. *With.* 10. *Hull.* 4. *Relh.* 3. *Sibth.* 4. *Abbot.* 2. *Curt. Lond. faſc.* 5. *t.* 1. *Dickſ. H. Sicc. faſc.* 13. 2.

Liguſtrum. *Raii Syn.* 465.

THE Privet is often met with in hedges and thickets, particularly where the ſoil is gravelly and rather moiſt. It alſo grows in chalky ſituations; and is very frequently planted for hedges in gardens: for, being in mild winters almoſt evergreen, and at all times very hardy, and having ſome reſemblance to the foliage of the Myrtle, it has been thought peculiarly eligible for ſuch a purpoſe. It has alſo the advantage of bearing the ſmoke, even of London itſelf, better than moſt ſhrubs.

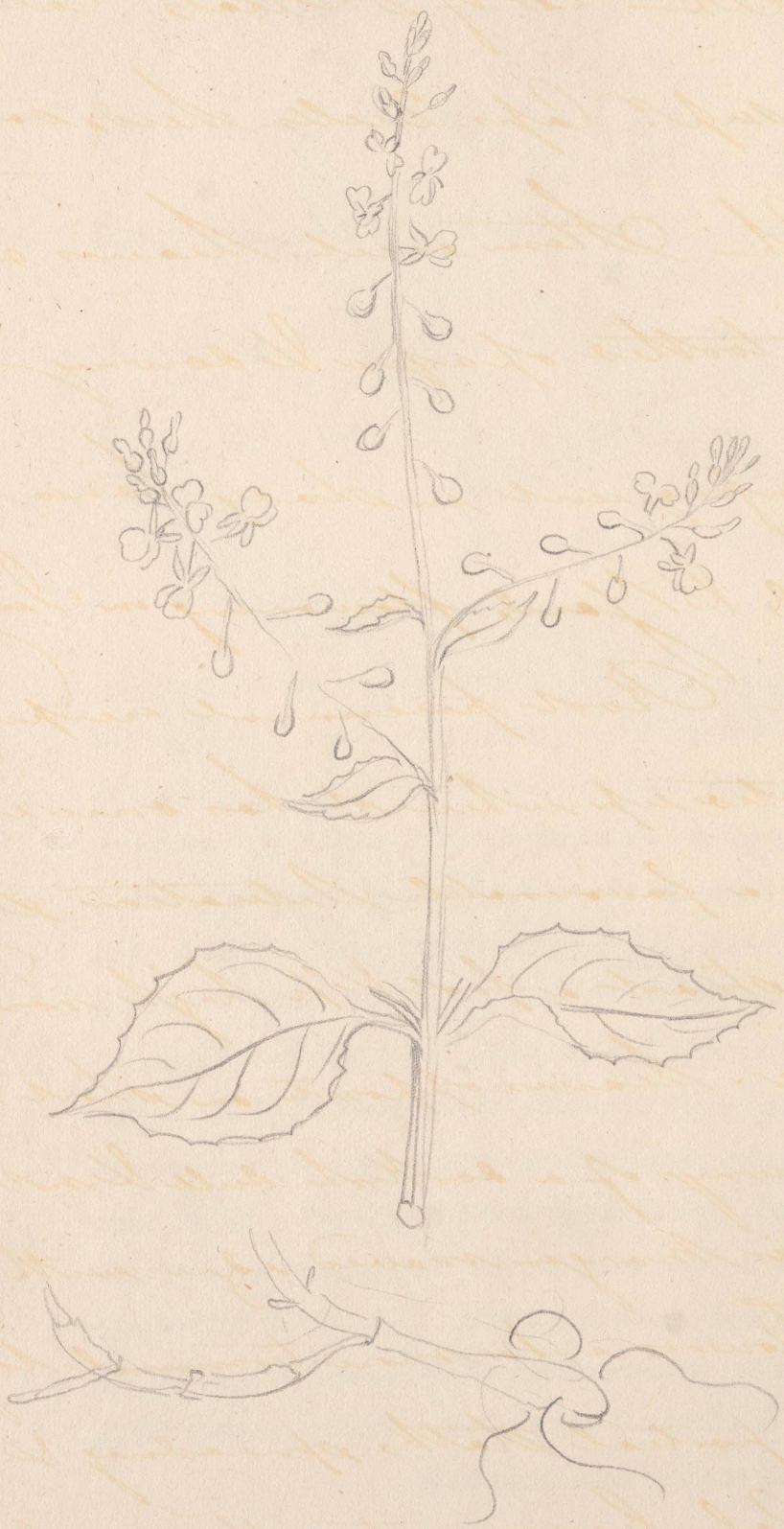
The whole plant is ſmooth, bitter, particularly the berries. Leaves oppoſite, nearly ſeſſile, entire, various in breadth, more or leſs obtuſe, but tipped with a minute point. Flowers produced early in June, white, with a ſtrong unpleaſant ſmell, and growing in denſe terminal panicles. The corolla turns brown before it falls. In ſome others of the ſame natural order, the *Jaſmineæ*, it aſſumes a purple hue. Berries purpliſh black, with 4 ſeeds encloſed in a mealy pulp.

Registrum 1

Dendron

2a 1c

Greca — 1x2



Circæa Lutetiana. Comm. Enchanters Nightsh.

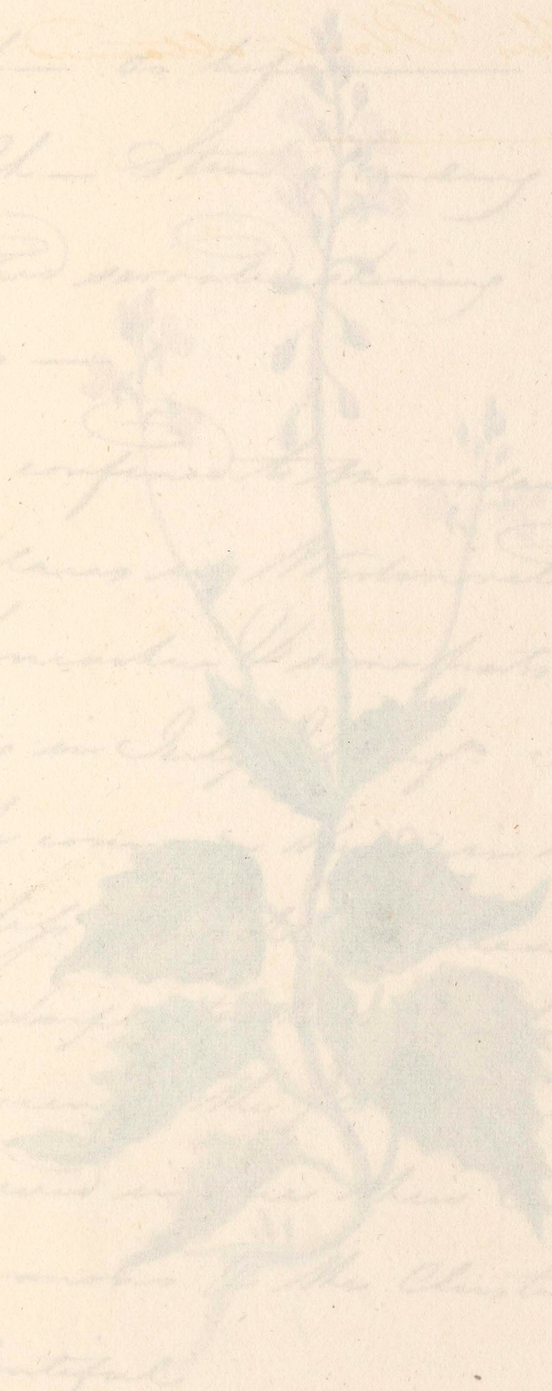
Decandria Monogynia

Gen. Ch. Cor. of 2 Petals. Cal. of 2 leaves sup. Caps. 2 cells. Seeds solitary

Spec. Ch. Stem erect. Leaves ovate slightly toothed opaque & downy

Not unfrequent in shady lanes Woods Orchards & Yards flowering in June & July — Root perennial creeping hard to be rooted up when it has once established itself in a favourable Situation. Stem upright strait a foot & ½ high round downy hairy. Leaves opposite on short stalks ovate downy of a darkish dull & not shining green their margin waved edged with short teeth — Flowers in 1 or more terminal long Clusters their partial stalks spreading & at length reflexed. Cal. leaves ovate reflexed colour. Petals inversely heartshaped white or reddish shorter than the Stamina & Style — Capsule

roundish dotted with little hooks. Bracts
by which (separating entire from the stalk) it
sticks to the Coats of Animals — The Seeds
nevertheless are often abortive — We know
not how this Plant obtained its Roman
tic Name ——————



1057

Circaea Alpina — Mountain E. N.

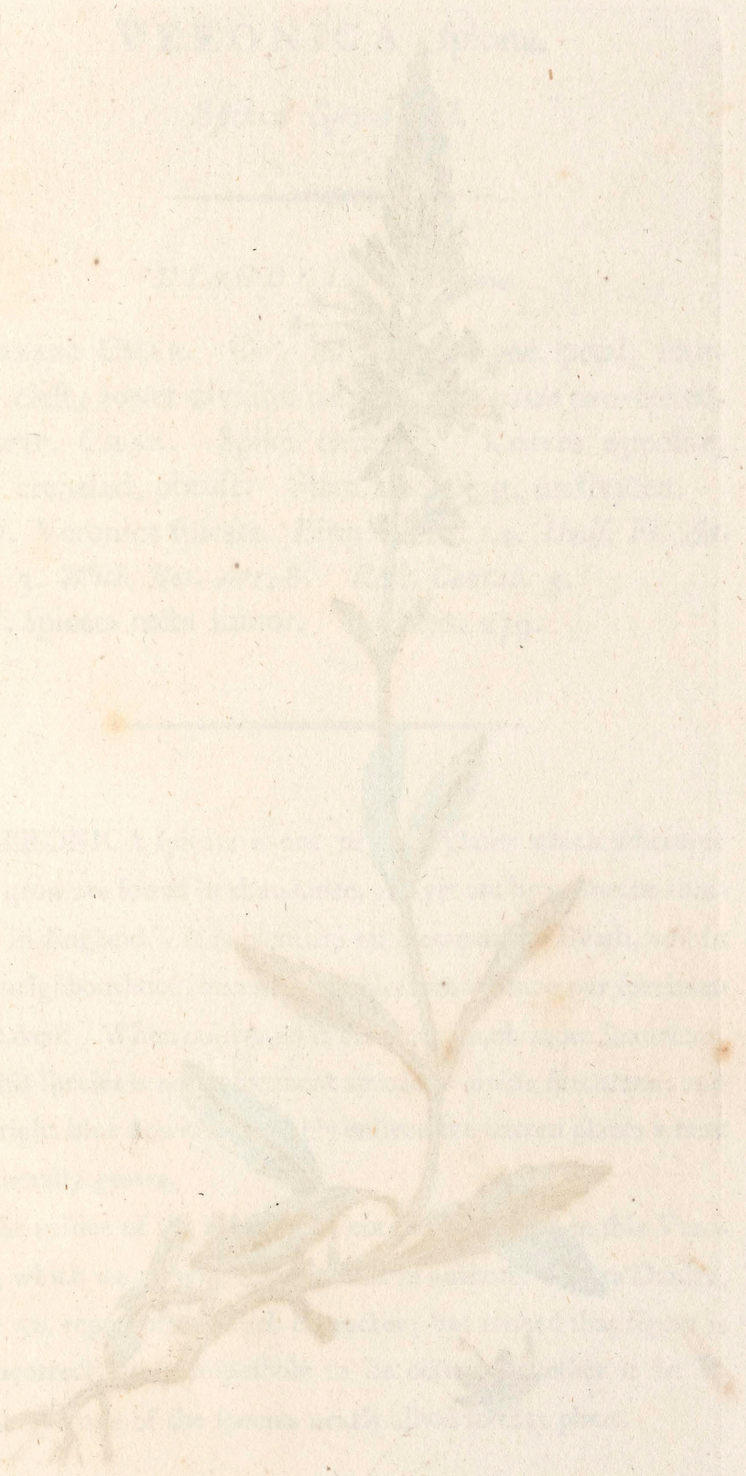
Diandria Monogynia

Gen. Ch — as before ——

Spec. Ch — Stem ascending leaves heartshaped serrated shining Calyx membranous —

Chiefly confined to mountainous stony shady places in Westmoreland Cumberland Lancashire & some parts of Scotland flowering in July & Augt. It differs from the common kind in being much lower & less upright its leaves heartshaped deeply & sharply toothed of a bright & very shining green — the flowers are more elegant & veined in hue their Cal. more coloured & membranous & the Clusters generally more plentiful

1



J. Sowerby del.t Nov.r 1.1790.

VERONICA ſpicata.

Spiked Speedwell.

DIANDRIA Monogynia.

GENERIC CHAR. *Cor.* inferior, of one petal, four-cleft; lower diviſion narroweſt. *Capſule* two-celled.

SPECIF. CHAR. Spike terminal. Leaves oppoſite, crenated, obtuſe. Stem aſcending, undivided.

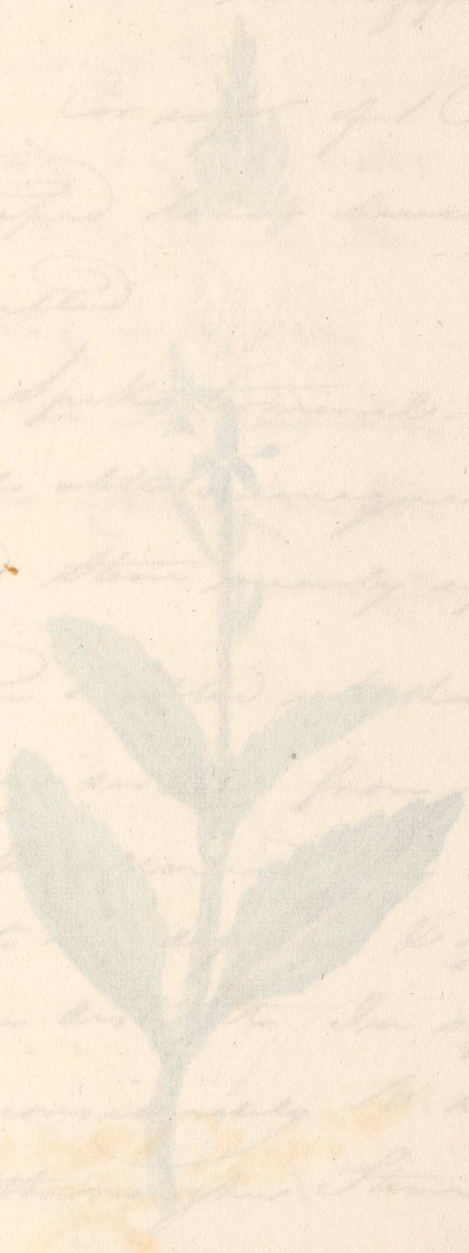
SYN. Veronica ſpicata. *Linn. Sp. Pl.* 14. *Hudſ. Fl. An.* 3. *With. Bot. Arr.* 8. *Relh. Cantab.* 3.
V. ſpicata recta minor. *Raii Syn.* 279.

VERONICA ſpicata is one of thoſe plants which wherever they grow are found in abundance, and yet are by no means common in England. It is plentiful on Newmarket Heath, and in that neighbourhood, on a chalky ſoil, from whence our ſpecimen was taken. When cultivated it becomes much more luxuriant.

This ſpecies is not unfrequent abroad in alpine ſituations; and its bright blue flowers agreeably enliven the barren places where it generally grows.

The orifice of the tube of the corolla is bearded in this Veronica, which we do not find remarked in authors. Flora Danica, plate 52, repreſents no ſuch character; but indeed that figure is ſo incorrect, it is impoſſible to be certain whether it be V. ſpicata, or one of the ſpecies nearly allied to that plant.

Veronica 2



Veronica hybrida - Welsh Speedwell

Diandria Monogynia

Gen. Ch. Cor inferi. of 1 Petal 4 cleft wheel shaped lower Segment narrowest Caps. 2 celled

Spe. Ch. Spikes terminal - leaves opposite elliptical obtuse unequally & bluntly serrated Stem nearly upright

Many have doubted whether this Veronica were really distinct from the Spicata It must be allowed the difference is not easy to be defined & yet we believe them to be distinct In size & appearance they differ considerably V. h. is twice as large with rougher Stem & leaves the latter are more strongly serrated or notched of a much broader elliptical form & of a more glaucous green — the winged footstalk is common to both kinds - The Stem in that now before us generally produces 3 spikes when luxuriant the rudiments of the 2 lateral ones appear in our Speci-

men in the bosoms of the upper leaves
It always grows near the Root is compo
& perennial & the flowers appear in
July & August — D. dysenteria is a ver
rare species — Mr Lhwyd found it in
Rays Tenis on the side of a Hill in Mon
gomeryshire — Ours was gathered near
Carmel Wells Lancashire on Humphrey
Head a steep Rock jutting into the Sea
by Mr Bingley

765.

Aprilis 1.1809. Published by J.t Sowerby London.

VERONICA officinalis.

Common Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-ſhaped; lower diviſion narroweſt. *Capſ.* 2-celled.

SPEC. CHAR. Spikes lateral, on ſtalks. Leaves oppoſite, rough. Stem procumbent.

SYN. Veronica officinalis. *Linn. Sp. Pl.* 14. *Sm. Fl. Brit.* 16. *Hudſ.* 4. *With.* 13. *Hull.* 4. *Relh.* 4. *Sibth.* 4. *Abbot.* 2. *Curt. Lond. faſc.* 3. *t.* 1. *Woodv. Suppl. t.* 219. *Dickſ. H. Sicc. faſc.* 13. 3. V. mas, ſupina et vulgatiſſima. *Raii Syn.* 281.

PLENTIFUL on dry ſandy banks, or in woods and heathy places, flowering in May and June.

The roots are fibrous and perennial. Stems a little woody, proſtrate, a foot or more in length, ſet with numerous, oppoſite, elliptical, blunt or pointed, ſerrated leaves, which are rough on both ſides, like the ſtem, with ſhort ſpreading hairs, that appear under a magnifier to be finely jointed. The ſpikes of flowers ſtand ſolitary, on long ſtalks, from the boſoms of the uppermoſt leaves, and riſe above the termination of the ſtem; indeed they generally ſtand erect, making almoſt a right angle with it as it lies on the ground. Calyx hairy, in 4 almoſt equal, elliptical, but narrow, ſegments. Corolla blue, with darker veins. Capſule obcordate, a little hairy, conſiſting of 2 valves.

This *Veronica* was formerly much recommended to be uſed inſtead of the Chineſe Tea, particularly in Sweden. Some have contended that it was the very ſame plant, brought with ſo much trouble and expence from China. Thoſe who adulterate tea, however, know better than to mix any of this herb with it, whoſe appearance and flavour would ſoon betray it to our more refined taſtes. It is aſtringent, with ſome degree of acrimony, and a rather unpleaſant bitter.

Veronica fruticulosa — Flesh col.d

Shrubby Speedwell

Diandria Monogynia

Gentle as before —

Spelt — Corymbus terminal spiked many flowerd leaves elliptic lanceolate Stems erect Caps. ovate of 4 Valves

It has been found with V. saxatilis upon Ben Lawers flowering at the same Season — In stony woody Rocks & Stems branching & intricate at their base it agrees with it but the flowering branches are perfectly upright 6 in or more in height each bearing a Spike rather than a Corymbus of a considerable number of flowers whose Cor. is flesh col.d never blue & whose Stalks scarcely at all expand their branches in length the leaves also are rather paler much more numerous oblong a little downy at their edges & veins They are sometimes quite entire sometimes crenate or serrated being liable to vary in that parti

calay greatly — The Caps & Cal agree much with those of N.S. & the flower Stalks are lengthened out as the fruit ripens. but never in so great a Degree as in that Species —

In both these Kinds of Spadunculles the flowering branches are merely annual tho the Stem below is woody & truly perennial so that the taller ought never to be esteemed the naked Crown of the Root —

all the petals a bright blue verging to pu
the Anthers conspicuously white —

Veronica Saxatilis — Blue Rock Speedwell

Diandria Monogynia

Gen. Ch. as before

Spec. Ch. Cor. terminal & few flowers

Leaves elliptical Stems spreading

Caps. oval & 4 Valves

Sent from Ben. Lawers — it is found

& even Steadily flowering in July

The Roots run deep into the fissures of

rocks & the woody branching entangled

Stems form small tufts from whence the

simple hairy round downy flowering-branches

3 or 4 inch. long spread in many directions

The leaves are opposite small elliptical or

oblong blunt always entire at their base &

extremity but often serrated in some degree

about their middle They are a little thick

or fleshy smooth of a dull darkish green tur-

ning black when dry — from 3 to 6 large

handsome dark blue flowers grow in a short

terminal bracteated whose stalks are 2 or 3 times

as long as the corresponding floral leaves — Cal
in 4 nearly equal blunt downy segments — Ari-
ferous of the Cor. elegantly Purple with red — Caps. long-
ovate the Cal. ovate downy splitting as it ripens
into 4 lanceolate Valves so that the fruit dif-
fers much from the heart shaped form of our
more common Species — This beautiful little
plant has been long known in the more curi-
ous English Gardens under the name of V.
fruticulosa with which many Botanists from
Linnaeus Haller & Jacquin originally have
been accustomed to confound it but as justly
will appear in our next figure —

Veronica Alpina — Alpine Speedwell

Diandria Monogynia

Gen. Ch. Cor. infer. of 1 Petal 4 cleft. the lower Division narrowest. Caps. 2 celled

Spec. Ch. Corymbus terminal. Leaves opposite ovate smooth slightly serrated. Calyx hairy Stem simple ascending

Gathered on the Mountains of Badenoch Scotland in 1794 by Mr J Mackay.

It flowers in July & Aug. & is perennial It is found only on the highest Alps on boggy spots among trickling Rills. Root of long simple fibres. Stems branched & procumbent at the very base from whence they also throw out Roots then obliquely upright 3 or 4 inches high hairy round smooth or hairy. Leaves opposite on short footstalks, ovate rather obtuse often entire but generally with a few dispersed crenatures dark green polished smooth

Flowers in a short dense blunt Spike or Co-
rymbus afterwards lengthened out. The lower
most flower stalks longest. Calyx in 4 ra-
ther unequal hairy & ciliated segments, All
the hairs are finely jointed. Flowers bright blue
with a white tube. Caps. compressed notched hairy
tipped with a permanent Style.

Veronica serpyllifolia Smooth Speedwell

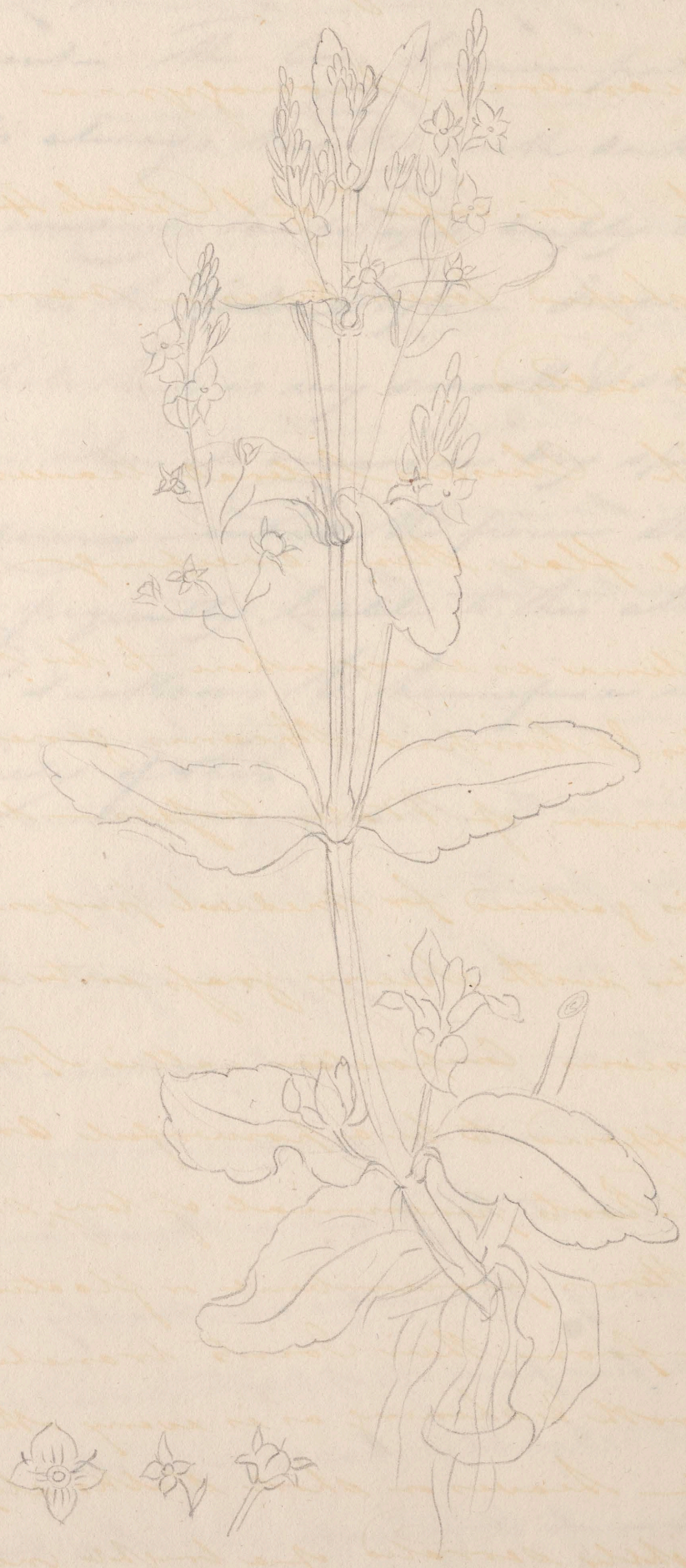
Diandria Monogynia

Gen. Ch. — as before ———

Spec. Ch. — Clusters terminal. rather spicate. Leaves ovate slightly crenate 3 nerved smooth. Caps. inversely heart-shaped shorter than the Style.

Common enough in grassy Pastures which are rather moist sometimes in the shady parts of cultivated Ground flowering in the early part of the Summer. The Roots are perennial fibrous & the procumbent Stems throw out numerous fibres by which the plant is much increased The flowering Branches are mostly erect bearing a few pair of opposite roundish slightly crenate 3 ribbed leaves on short pedicels footstalks Each Branch terminates in a lax ~~round~~ Spike or Racemus of small pale blue sometimes flesh col.d flowers accompanied by slip.

tical despite Bractlet — The Segments of the
Cal. are equal obovate blunt scarcely at all
pubescent — The Cor. however pale occasion-
ally is always marked with dark blue stre
Caps. inversely heart shaped deeply divided abo
as long as the ~~Cal~~ Style — In wet places
the whole herb is very smooth & shining with
fleshy — when it occurs in dry spots it is all
over downy — indeed the flowers Stalks & Bra
tlets are frequently liable to this alteration
The Dickson's N. Cunninghamii is made
a Variety of this



Veronica Beccabunga — Brooklime

Diandria Monogynia

Gen. Ch. Cor. inferr. of 1 Petals 4 cleft
wheel shaped lower division narrower
Caps. 2 celled

Spec. Ch. Clusters lateral leaves
eliptical flat. Stem creeping

Brooklime is every where to be found
in Ditches & limpid Streams generally
the companion of Water Cresses — with
which it is gathered for medical purposes &
both together with Scurvy Grass enter into
that nauseous Composition called Spring
Drinks supposed to be a powerful Antiscor
butic — Root perennial of long simple
fibres — Stems procumbent or floating ta-
king root from their Joints branched round
leafy smooth & shining as is every other part
of the herb — Leaves on short stalks eliptical
blunt slightly serrated of a bright green
somewhat fleshy Clusters axillary opposite
much longer than the leaves composed of

numerous blue flowers in perfection about June or July Bractea lanceolate shorter than the partial flower stalk Segments of the Cal. ovate acute shorter than the Cor. Caps. clover

781.

Sept.1 1800 Published by J. Sowerby London.

VERONICA Anagallis.

Water Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-ſhaped; lower diviſion narroweſt. *Capſ.* 2-celled.

SPEC. CHAR. Cluſters lateral, oppoſite. Leaves lanceolate, ſerrated. Stem erect.

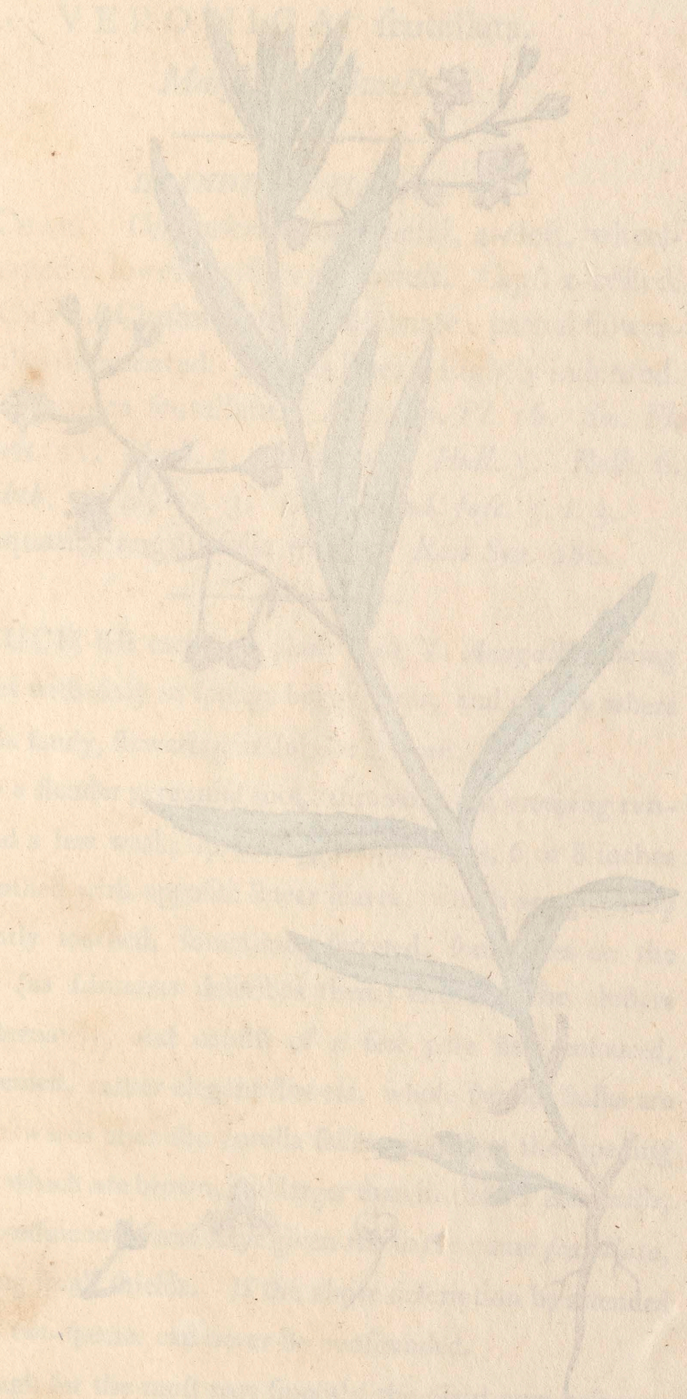
SYN. Veronica Anagallis. *Linn. Sp. Pl.* 16. *Sm. Fl. Brit.* 20. *Hudſ.* 5. *With.* 15. *Hull.* 5. *Relh.* 5. *Sibth.* 5. *Abbot.* 3. *Curt. Lond. faſc.* 5. *t.* 2. *Dickſ. H. Sicc. faſc.* 13. 4.

V. aquatica longifolia media. *Raii Syn.* 280.

VERY common in ditches and muddy watery places, flowering in July, and, like all ſuch aquatics as are tenacious of life or eaſily propagated, it is often found out of the water on the neighbouring banks, merely diminiſhed in luxuriance.

The root is creeping and perennial. Whole herb much agreeing in habit with the Brooklime, V. *Becabunga*, *t.* 655, except that the ſtem is erect, and leaves lanceolate, acute, longer than in that ſpecies. The cluſters are alſo longer, ſharper, compoſed of more numerous and ſmaller flowers. Every part of the plant is ſmooth. Corolla of a pale dull blue, occaſionally fleſh-coloured, with darker veins. Capſules ſmall, roundiſh, notched.

No notice has been taken of this plant in a medical or œconomical view. Its qualities are probably akin to thoſe of Brooklime, to which it is nearly allied in botanical characters, though unqueſtionably a diſtinct ſpecies.



VERONICA ſcutellata.

Marſh Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-ſhaped; lower diviſion narroweſt. *Capſ.* 2-celled.

SPEC. CHAR. Cluſters lateral, alternate; partial flower-ſtalks divaricated. Leaves linear, ſlightly indented.

SYN. Veronica ſcutellata. *Linn. Sp. Pl.* 16. *Sm. Fl. Brit.* 21. *Hudſ.* 5. *With.* 16. *Hull.* 5. *Relh.* 6. *Sibth.* 5. *Abbot.* 3. *Curt. Lond. faſc.* 5. *t.* 3.
V. aquatica anguſtifolia minor. *Raii Syn.* 280.

A MUCH leſs common plant than V. *Anagallis*, being to be met with only in ſpongy boggy ſpots, and chiefly where the ſoil is ſandy, flowering in July or Auguſt.

It has a ſlender perennial root, throwing out creeping runners, and a few weak, ſpreading, ſimple ſtems, 6 or 8 inches long, clothed with oppoſite linear leaves, which are generally but ſlightly toothed, ſometimes ſerrated, ſometimes on the contrary (as Linnæus deſcribes them) entire. The cluſters grow alternately, and conſiſt of a few pale fleſh-coloured, purple-veined, rather elegant flowers, whoſe ſlender ſtalks are bent backwards after the corolla fades, and then the ripening capſules, which are brown, and larger than in the V. *Anagallis*, become conſpicuous, and have given riſe to the name *ſcutellata*, reſembling ſmall ſhields. If the aboye deſcription be attended to, theſe two ſpecies can never be confounded.

Although for the moſt part ſmooth, the plant now before us has been found in a downy ſtate by the Rev. C. Sutton of Norwich; and indeed I have obſerved that variety to be common on St. Faith's Newton bogs.

VERONICA montana.

Mountain Speedwell.

766.

May 1. 1804. Published by J. Sowerby, London.

VERONICA montana.

Mountain Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-ſhaped; lower diviſion narroweſt. *Capſ.* 2-celled.

SPEC. CHAR. Cluſters lateral, elongated, ſlender, of few flowers. Leaves ovate, ſerrated, on foot-ſtalks. Stem hairy in every direction.

SYN. Veronica montana. *Linn. Sp. Pl.* 17. *Sm. Fl. Brit.* 21. *Hudſ.* 6. *With.* 16. *Hull.* 5. *Relh.* 7. *Sibth.* 6. *Abbot.* 4. *Curt. Lond. faſc.* 4. *t.* 2.

V. chamædryoides, foliis pediculis oblongis inſidentibus. *Raii Syn.* 281.

MR. SOWERBY gathered this ſpecimen in Charlton wood, where Sherard is firſt recorded to have found the V. *montana*, and where it ſtill grows copiouſly. Nor is it very rare in other parts of England, in ſhady and rather moiſt woods, particularly on a chalky ſoil, flowering in May and June. The root is perennial.

Many botaniſts have thought this merely a variety of V. *Chamædrys*, ſee our *t.* 623; but ſuch an idea can have ariſen, as Mr. Curtis obſerves, only from a very ſuperficial inquiry. In the firſt place, the hairineſs of the ſtem being general, and not confined to two longitudinal lines, is its very ſufficient diſtinction; to this may be added the ſtalked leaves, which are thinner and more ſhining than thoſe of the *Chamædrys*; the corolla is much ſmaller and leſs beautiful; laſtly, the capſule is thrice as large as in that ſpecies, more compreſſed and dilated, and formed as it were of two orbicular portions joined together, inſtead of being heart-ſhaped.

Veronica Chamædrys — Germander Speedwell

Diandria Monogynia

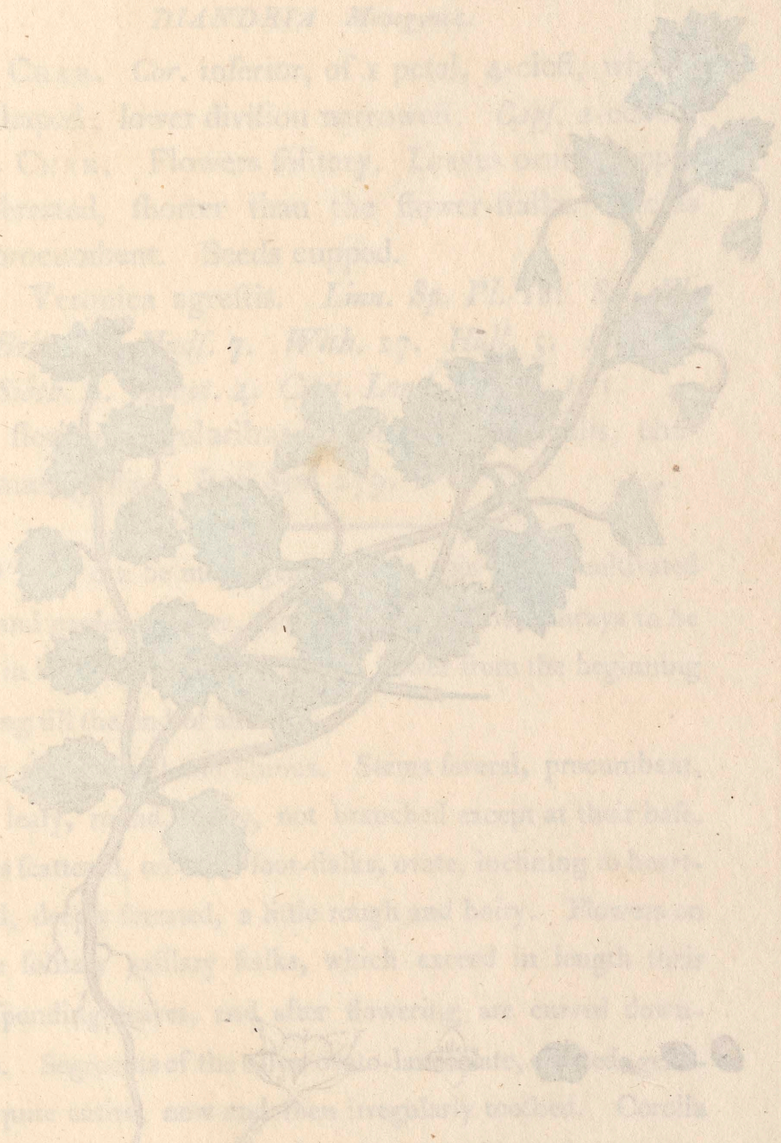
Gen. Ch. — as before —

Spe. Ch. — Racemes lateral leaves ovate
sessile rugose deeply serrated — Stem
marked with 2 longitudinal hairy
lines —

In the month of May every hedge bot-
tom & grassy bank is adorned with the
beautiful flowers of this Plant — At night
or under the influence of moisture the Co-
rolla does but in dry bright Weather appears
fully expanded in all its brilliancy —
& tho' each flower is short lived there is a
copious succession —

VERONICA agrestis.

Procumbent Speedwell.



R. Sowerby Published by Jas. Sowerby London.

VERONICA agreſtis.

Procumbent Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-ſhaped; lower diviſion narroweſt. *Capſ.* 2-celled.

SPEC. CHAR. Flowers ſolitary. Leaves ovate, deeply ſerrated, ſhorter than the flower-ſtalks. Stems procumbent. Seeds cupped.

SYN. Veronica agreſtis. *Linn. Sp. Pl.* 18. *Sm. Fl. Brit.* 23. *Hudſ.* 7. *With.* 17. *Hull.* 5. *Relh.* 7. *Sibth.* 6. *Abbot.* 4. *Curt. Lond. faſc.* 1. *t.* 1.

V. floribus ſingularibus, in oblongis pediculis, chamædryfolia. *Raii Syn.* 279.

NO weed can be more general than this in all cultivated fields and gardens, where, though an annual, it is always to be found in ſome ſtage or other, and in flower from the beginning of ſpring till the end of autumn.

The root is ſmall and fibrous. Stems ſeveral, procumbent, long, leafy, round, hairy, not branched except at their baſe. Leaves ſcattered, on ſhort foot-ſtalks, ovate, inclining to heart-ſhaped, deeply ſerrated, a little rough and hairy. Flowers on ſimple ſolitary axillary ſtalks, which exceed in length their correſponding leaves, and after flowering are curved downwards. Segments of the calyx ovato-lanceolate, ciliated, generally quite entire, now and then irregularly toothed. Corolla ſmall, bright blue. Capſule of two round ſwelling lobes, rough. Seeds about 6 in each cell, externally rugged, cupped or hollowed out on the other ſide, in which hollow the little ſtalk is fixed that attaches them to the ſeed-veſſel. Their whole ſtructure is curious, and totally different from that of V. *arvenſis*.

VERONICA arvensis.

Wall Speedwell.

Mary Lawson Published July 1st 1814 by J. & J. Sowerby London.

VERONICA arvenſis.

Wall Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft, wheel-ſhaped; lower diviſion narroweſt. *Capſule* two-celled.

SPEC. CHAR. Flowers ſolitary. Leaves ovate, deeply ſerrated; the floral ones lanceolate, longer than the flower-ſtalk. Stem erect.

SYN. Veronica arvenſis. *Linn. Sp. Pl.* 18. *Sm. Fl. Brit.* 24. *Hudſ.* 6. *With.* 12. *Hull.* 5. *Relh.* 8. *Sibth.* 6. *Abbot.* 5. *Curt. Lond. faſc.* 2. *t.* 2.

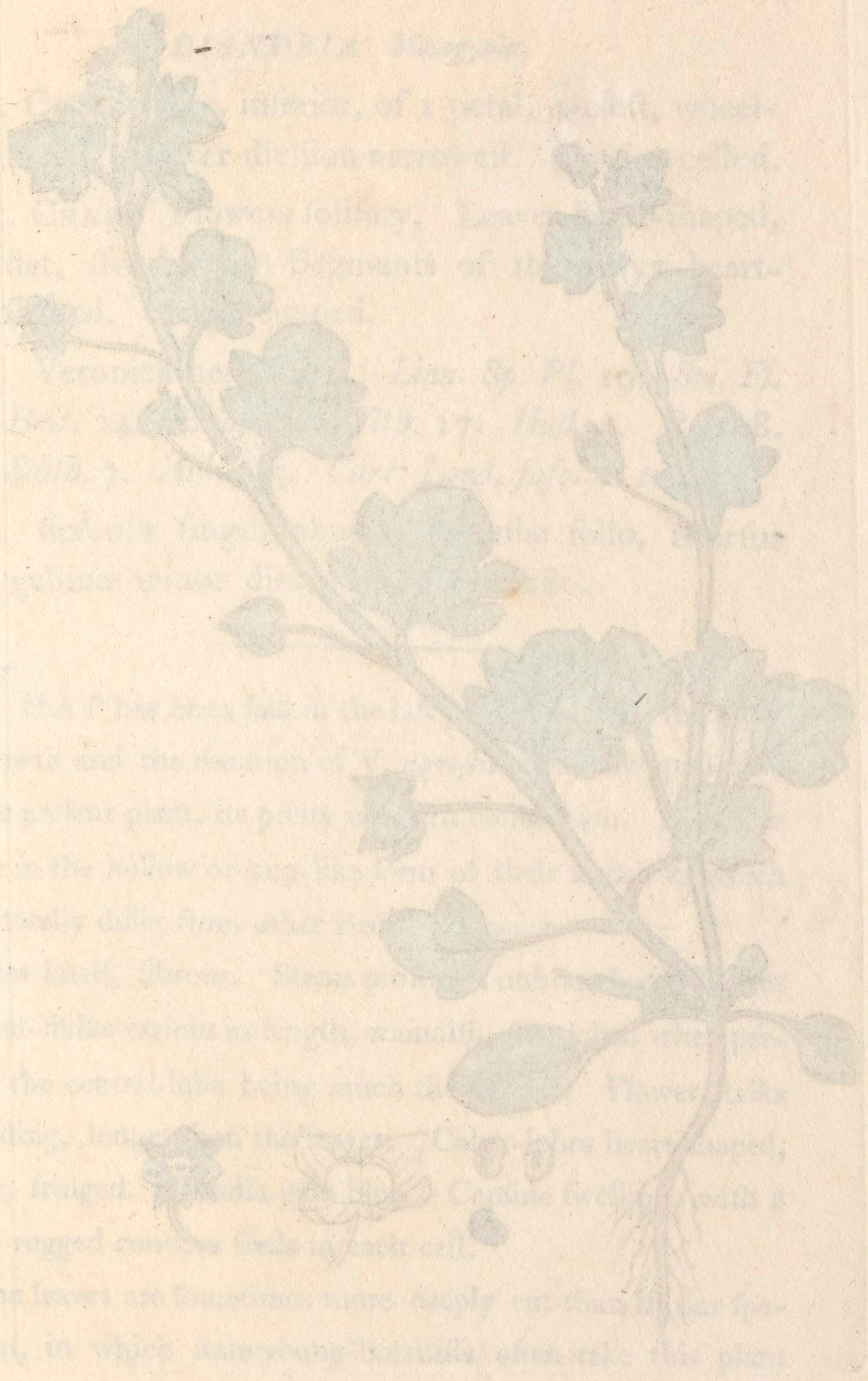
V. floſculis ſingularibus, cauliculis adhærentibus. *Raii Syn.* 279.

FREQUENT in dry gravelly fields, waſte ſandy places, and on the tops of walls, flowering in May.

Root annual, fibrous. Whole herb generally of a paler colour than the moſt common ſpecies of *Veronica, agreſtis* and *hederifolia*, nor is it ſo apt to turn black in drying. The ſtem is about 6 inches high, erect, generally branched at the baſe. Leaves oppoſite, ovate, hairy, ſtrongly ſerrated; the lower ones chiefly on ſhort foot-ſtalks; the upper ones, from whoſe boſoms the flowers are produced, are lanceolate, narrow and entire, ſo as more properly to be called *bracteæ*; and hence Dr. Withering has lately removed this and V. *verna* to the ſpiked ſection of the genus, to which however they are not naturally akin, nor ought they to be ſeparated from *triphyllos* and other annual ſpecies. The flowers of V. *arvenſis* ſtand on ſhort ſtalks, and are ſmall, pale-blue, with 4 lanceolate, entire, rather unequal, ſegments to their calyx. Capſule inverſely heartſhaped, compreſſed, ciliated. Seeds ſeveral, elliptical, flat, with a little dimple in the middle of one ſide. The form of the ſeeds and of the calyx-leaves will be found to afford the moſt beautiful and certain marks of ſpecific diſtinction, particularly of the annual ſpecies, in this genus.

VERONICA hederifolia.

Ivy-leaved Speedwell.



VERONICA hederifolia.

Ivy-leaved Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of 1 petal, 4-cleft, wheel-ſhaped; lower diviſion narroweſt. *Capſ.* 2-celled.

SPEC. CHAR. Flowers ſolitary. Leaves heart-ſhaped, flat, five-lobed. Segments of the calyx heart-ſhaped. Seeds cupped.

SYN. Veronica hederifolia. *Linn. Sp. Pl.* 19. *Sm. Fl. Brit.* 24. *Hudſ.* 7. *With.* 17. *Hull.* 5. *Relh.* 8. *Sibth.* 7. *Abbot.* 5. *Curt. Lond. faſc.* 2. *t.* 1.

V. floſculis ſingularibus, Hederulæ folio, Morſus gallinæ minor dicta. *Raii Syn.* 280.

WHAT has been ſaid in the laſt page reſpecting the place of growth and the duration of V. *agreſtis* is exactly applicable to the preſent plant, its pretty conſtant companion. Both alſo agree in the hollow or cup-like form of their ſeeds, in which they totally differ from other Britiſh *Veronicæ*.

Root ſmall, fibrous. Stems proſtrate, unbranched. Leaves on foot-ſtalks various in length, roundiſh, five-lobed when perfect, the central lobe being much the largeſt. Flower-ſtalks ſpreading, longer than the leaves. Calyx-lobes heart-ſhaped, acute, fringed. Corolla pale blue. Capſule ſwelling, with 2 large rugged concave ſeeds in each cell.

The leaves are ſometimes more deeply cut than in our ſpecimen, in which ſtate young botaniſts often take this plant for V. *triphyllos*, ſee our 1ſt vol. *t.* 26. If the ſeeds be attended to no miſtake can happen.

J. Sowerby del.t Aug.st 1. 1791.

VERONICA triphyllos.

Trifid Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft, lower diviſion narroweſt. *Capſule* two-celled.

SPEC. CHAR. Flowers ſolitary. Leaves with deeply fingered diviſions. Flower-ſtalks longer than the calyx.

SYN. Veronica triphyllos. *Linn. Sp. Pl.* 19. *Hudſ. Fl. An.* 7. *With. Bot. Arr.* 15.

Veronica floſculis ſingularibus, foliis laciniatis, erecta. *Raii Syn.* 280.

FOR the wild ſpecimens here figured of this plant and the preceding, we are obliged to Sir Thomas Cullum, Bart. who gathered them near Bury, and kindly communicated them in a recent ſtate, along with Holoſteum umbellatum, and ſeveral other rare plants, all which will in due time appear in this work. V. triphyllos is always much larger, and more diffuſe, than the verna, its leaves more deeply divided, and their ſegments more or leſs obovate: neither is it quite ſo rare a plant, having been found in ſandy fields in various parts of Norfolk and Suffolk. It flowers early, and, like the verna, varies much in ſize, according to the ſhare of nouriſhment it meets with. Nothing is more common than for young Engliſh botaniſts, in gathering Veronica hederifolia with leaves more than uſually deeply cut, to think they have found V. triphyllos.

J. Sowerby del. Aug.t 1.1791.

VERONICA verna.

Vernal Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft; lower diviſion narroweſt. *Capſule* two-celled.

SPEC. CHAR. Flowers ſolitary. Leaves with fingered diviſions, longer than the flower ſtalks, which are ſhorter than the calyx.

SYN. Veronica verna. *Linn. Sp. Pl.* 19. *Hudſ. Fl. An.* 8. *With. Bot. Arr.* 15. *Roſe's Bot. (Appendix)* 444. *t.* 2. *f.* 1.

FIRST found by the late Sir John Cullum, Bart. in dry ſandy fields about Bury in Suffolk, and not yet diſcovered in any other part of England that we know of. It is an annual, flowering in April and May. From its near reſemblance at firſt ſight, eſpecially when luxuriant, to Veronica arvenſis, it may perhaps have been overlooked for that plant. They are however perfectly diſtinct.

If Moriſon's figure, ſect. 3. t. 24. f. 21. be intended for Veronica verna, as Dr. Stokes ſuſpects, it is a very inaccurate repreſentation of the plant.

T. Sowerby del.t Dec.r 1793.

PINGUICULA lusitanica.

Pale Butter-wort.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* ringent, spurred. *Cal.* two-lipped, with five segments. *Capsule* of one cell.

SPEC. CHAR. Nectary blunt, shorter than the petal. Stalk hairy. Capsule globose.

SYN. Pinguicula lusitanica. *Linn. Sp. Pl.* 25. *Hudson. Fl. An. ed.* 1. 7.

P. villosa. *Hudson. Fl. An. ed.* 2. 8. *With. Bot. Arr.* 17. *Lightf. Fl. Scot.* 77. *t.* 6.

P. flore minore carneo. *Raii Syn.* * 281.

DR. PULTENEY of Blandford Dorsetshire was so obliging as to send us living plants of this very interesting species in the end of June last, gathered on bogs in his neighbourhood, and we embrace with pleasure the opportunity of clearing up that obscurity in which it has been enveloped.

The root is perennial. Leaves like those of other species of this genus, but rather more delicate and pellucid, reticulated with red veins, and much involute in the margin. Stalks hairy, especially in their lower part, with short spreading glandular hairs tipped with a viscid fluid. Flowers a little nodding. Calyx scarcely two-lipped, but almost equally 5-cleft. Tube of the corolla nearly cylindrical, yellow streaked with red; limb in 5 equal obcordate spreading segments, of a pale lilac; orifice hairy; spur inflated at the base, then contracted, terminating in a very blunt conical figure, and when dried (the only state in which Linnæus saw it) much thicker at the end than at the middle, streaked with red. Stamina flattish. Germen hairy. Stigma blunt, excavated on the upper side. Capsule perfectly globular, crowned with the withered stigma.

That this is the real P. lusitanica we learn from Portuguese specimens compared with those of Grisley, after which probably (seen in some herbarium) Linnæus described it, for he had it not in his own. That it is P. villosa of Lightfoot appears from a specimen from Skye, given to Dr. Smith by the Rev. Mr. Stuart, as well as from the figure in *Flo. Scot.* Neither can there be any doubt of its being what Ray and Hudson intended.

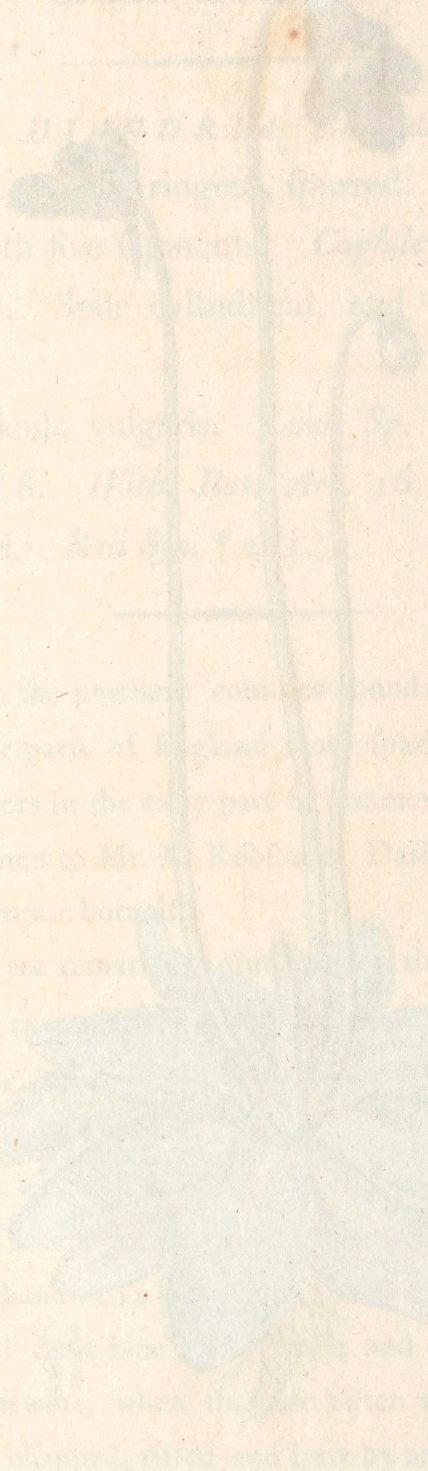
The better to distinguish this species from others we may remark that P. *vulgaris* has an unequal limb, sharp slender spur, and oval capsule: P. *alpina* a very short conical spur, and a long rostrated capsule: P. *villosa* a slender sharp spur, and obcordate compressed capsule, with short round leaves. Its hairy stalk and regular limb agree nearly with P. *lusitanica*, but the *villosa* is the smaller in all its parts.

2 nde

Pinguicula 3

PINGUICULA, vulgaris.

Common Butterwort.



70.

T. Powerby delt. Nov. 1. 1792.

PINGUICULA vulgaris.

Common Butter-wort.

DIANDRIA Monogynia.

GEN. CHAR. *Corolla* ringent, ſpurred. *Calyx* two-lipped, with five ſegments. *Capſule* of one cell.

SPEC. CHAR. Spur cylindrical, and as long as the petal.

SYN. Pinguicula vulgaris. *Linn. Sp. Pl.* 25. *Hudſ. Fl. An.* 8. *With. Bot. Arr.* 16. *Relh. Cant.* 8. P. Geſneri. *Raii Syn.* * 281.

ON bogs in the northern counties abundantly, alſo in Norfolk and other parts of England more ſparingly. It is perennial, and flowers in the early part of ſummer. We are obliged for this ſpecimen to Mr. E. Robſon of Darlington, a very aſſiduous and accurate botaniſt.

The leaves are remarkably glutinous on their upper ſide, and afford a good example of an involuted margin. The ſtructure of the ſtigma, and its cloſe application to the ſtamina in this genus, are very remarkable.

Butterwort is accuſed of cauſing the rot in ſheep; but Dr. Withering aſſures us no cattle whatever will feed upon it.

"The huſbandmen's wives of Yorkſhire do uſe to anoint "the dugs of their kine with the fat and oilous juyce of the "herbe butterwort, when they are bitten with any venomous "worme, or chapped, rifted and hurt by any other meanes"— as Maſter Gerarde teſtifieth.

May 1. 1795 Published by J.t Sowerby London

UTRICULARIA vulgaris.

Greater Hooded-Milfoil.

DIANDRIA Monogynia.

GEN. CHAR. *Cal.* of two equal leaves. *Cor.* ringent, ſpurred. *Capſule* of one cell.

SPEC. CHAR. Nectary conical. Stalk with few flowers.

SYN. Utricularia vulgaris. *Linn. Sp. Pl.* 26. *Hudſ. Fl. An.* 8. *With. Bot. Arr.* 18. *Relh. Cant.* 9. *Sibth. Oxon.* 7.

Lentibularia. *Raii Syn.* * 286.

EVEN this ſpecies of Utricularia is not extremely common, though more ſo than the following. It is perfectly an aquatic; nor can it poſſibly grow out of the water, occurring only in ſtagnant ditches and pools, and flowering after Midſummer.

The fibrous floating roots, ſlightly attached to the mud, are ſuppoſed to be perennial. The ſtem likewiſe floats horizontally under water, alternately divided into capillary branches, with briſtly leaves bearing little compreſſed curved bladders, open and bearded at the tip, containing a bubble of air, and a drop of watery fluid, in which, when highly magnified, Dr. Withering obſerved a quantity of extremely minute ſolid particles. Aquatic inſects frequently take up their lodging in theſe bladders. The ſtalk only riſes erect a few inches above the water, and is rendered conſpicuous by its ſpike of large handſome alternate flowers, whoſe flower-ſtalks and calyx are reddiſh or purple, the corolla of one irregular labiate petal, the ſpur conical and recurved, the mouth cloſed, palate prominent, of an orange colour. Stamina thick and ſhort. Germen ſuperior, ſtyle ſhort; ſtigma concave and bearded. See Dr. Withering's excellent deſcription.

We cannot poſitively determine to which of the varieties mentioned by Linnæus (*Flo. Suec.* & *Sp. Pl.*) our plant belongs; nor can we learn that any other form of *U. vulgaris* than that here repreſented has been found in Britain.

Utricularia 4

June 1. 1795 Published by Jas Sowerby London

UTRICULARIA minor.

Leſſer Hooded-Milfoil.

DIANDRIA Monogynia.

GEN. CHAR. *Cal.* of two equal leaves. *Cor.* ringent, ſpurred. *Capſule* of one cell.

SPEC. CHAR. Nectary keel-ſhaped.

SYN. Utricularia minor. *Linn. Sp. Pl.* 26. *Hudſ. Fl. An.* 9. *With. Bot. Arr.* 19. *Relh. Cant.* 9.
Lentibularia minor. *Raii Syn.* * 286.

BY far leſs frequent than the laſt. The Rev. Mr. Hemſted ſent it from the neighbourhood of Fordham Moor Cambridgeſhire. It alſo grows on ſome moors to the north of Norwich, intermixed with *U. vulgaris*, and flowering at the ſame time. The two ſpecies alſo agree in habit and ſtructure, the *minor* being only about half the ſize of the other, with paler, and generally fewer, flowers. The eſſential difference conſiſts in the ſpecies now before us having a ſhort blunt nectary, which projects ſo little, compared with the other, that Linnæus calls it only carinated, not conical. The palate too is not ſo prominent as to cloſe the orifice of the corolla.

Linnæus's deſcription in *Flo. Suec.* is worthy of him, but we rather wonder at his calling the corolla *dipetalous*, however deeply divided.

Tª Sowerby del.t Jan.y 1. 1793.

SALVIA verbenaca.

Wild Engliſh Clary.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* irregular. *Filaments* attached laterally to a little footſtalk.

SPEC. CHAR. Leaves ſerrated, ſmoothiſh. Corolla much more contracted than the calyx.

SYN. Salvia verbenaca. *Linn. Sp. Pl.* 35. *Hudſ. Fl. An.* 10. *With. Bot. Arr.* 22. *Relh. Cant.* 10. Horminum ſylveſtre Lavandulæ flore. *Raii Syn.* 237.

COMMON on chalky and gravelly ſoils, as about Charlton. The whole plant is of a deeper green than Salvia pratenſis, and the flowers of a darker blueiſh purple; they are alſo much ſmaller, and by far leſs conſpicuous.

The root is perennial, ſtrong and woody. Radical leaves on footſtalks, ſinuated and crenate; thoſe on the ſtem ſeſſile, ſharply and groſsly ſerrated. Bracteæ entire, heart-ſhaped, acute, larger in proportion to the flowers than in S. pratenſis. The flowers appear in June, and may be found even till October. Our figure expreſſes their ſtructure.

The herb and flowers prove very aromatic upon being rubbed. The ſeeds are black and ſmooth, producing a great quantity of ſoft taſteleſs mucilage when moiſtened, whence they become ſerviceable for removing extraneous matter from the eyes. If put under the eyelid for a few moments, the tears diſſolve their mucilage, which envelops any ſand or duſt that may be in the way, and brings it out ſafely. Gerarde has noticed this.

J. Sowerby del.t Jan.y 1 1793

SALVIA pratenſis.

Meadow Clary.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* irregular. *Filaments* attached laterally to a little footſtalk.

SPEC. CHAR. Leaves oblong, heart-ſhaped at the baſe, crenated; the uppermoſt embracing the ſtem. Bracteæ minute. Summit of the corolla glutinous.

SYN. Salvia pratenſis. *Linn. Sp. Pl.* 35. *Hudſ. Fl. An.* 10. *With. Bot. Arr.* 21.
Sclarea pratenſis foliis ſerratis. *Raii Syn.* 237.

THE meadow clary is one of our more ſpecious, as well as of our moſt ſcarce plants of Britiſh growth. Mr. Jacob Rayer gathered this ſpecimen near Cobham in Kent, the ſeat of Lord Darnley. Dr. Stokes mentions it as common in Surry and Suſſex; we have had it too from Oxfordſhire. It flowers in June, and cannot eaſily be overlooked.

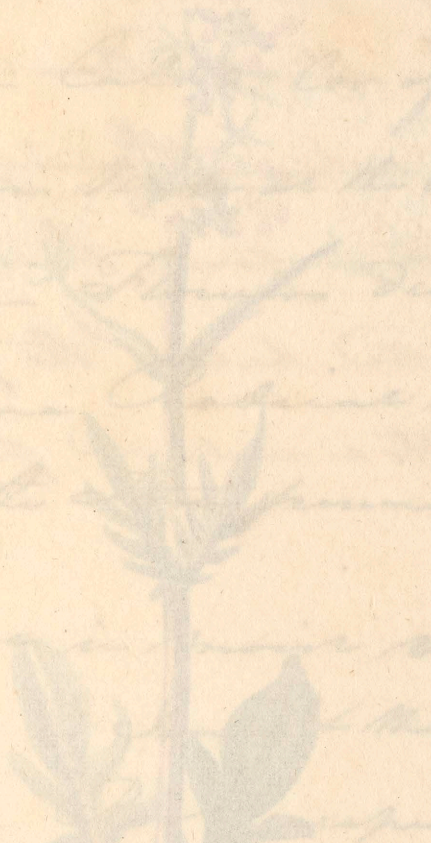
Root perennial. Leaves oblong, nearly ſmooth, irregularly crenated, wrinkled and veiny; the radical, and lower ſtem-leaves, on longiſh footſtalks, and ſometimes ſinuated; the uppermoſt ſeſſile, embracing the ſtem, ſharply pointed. Long whorled ſpikes of large blue flowers (6 of them in a whorl) terminate the ſtem and branches, with a pair of very ſmall heart-ſhaped, acuminated bracteæ to each whorl, whence Linnæus defines it *verticillis ſubnudis*, the bracteæ being ſo much leſs conſpicuous than in moſt other ſpecies. The flower-ſtalks and calyx, as well as the apex of the corolla, are hairy and viſcid. This is not a very aromatic ſpecies.

Salvini 5

Scandicci

Valeriana

1



Valeriana dioica. Small Marsh Valerian

Triandria Monogynia

Gen Ch — Cal. 0. Cor of 1 Petal saper
gibbous on side at the base — Seed 1 —
Spec Ch — Flowers dioecious with
3 Stamina Radical leaves ovate
those on the Stem pinnate

Frequent in moist bogs & meadows
flowering in June & the Roots are per-
ennial — Root creeping Stem 6 or 8 in
high erect simple striated — Radical
leaves ovate on footstalks undivided
those on the Stem opposite pinnate or an-
other pinnatifid in a lyrate manner —
all of them smooth & generally entire
but this last circumstance can by no means
be considered as part of their Specific Char.
tho' Linnaeus has admitted it for one in
his own Specimens the leaves are doubly
serrated — A forked cyme or panicle termi-
nates the Stem — The flowers are of a pale

blush colour male ~~Many~~ an other Rose female an-
the other for all the some flowers are frequently
found with Stamina & pistilla both organs
are scarce ever perfected in the same Indi-
vidual - The male Plant is always
smaller & less robust having a more trou-
ble function to perform than the other
The Seed is naked below the flower furnis-
ches ripe with a radiated feathery Coron

Valeriana officinalis - Gt. wild Valerian

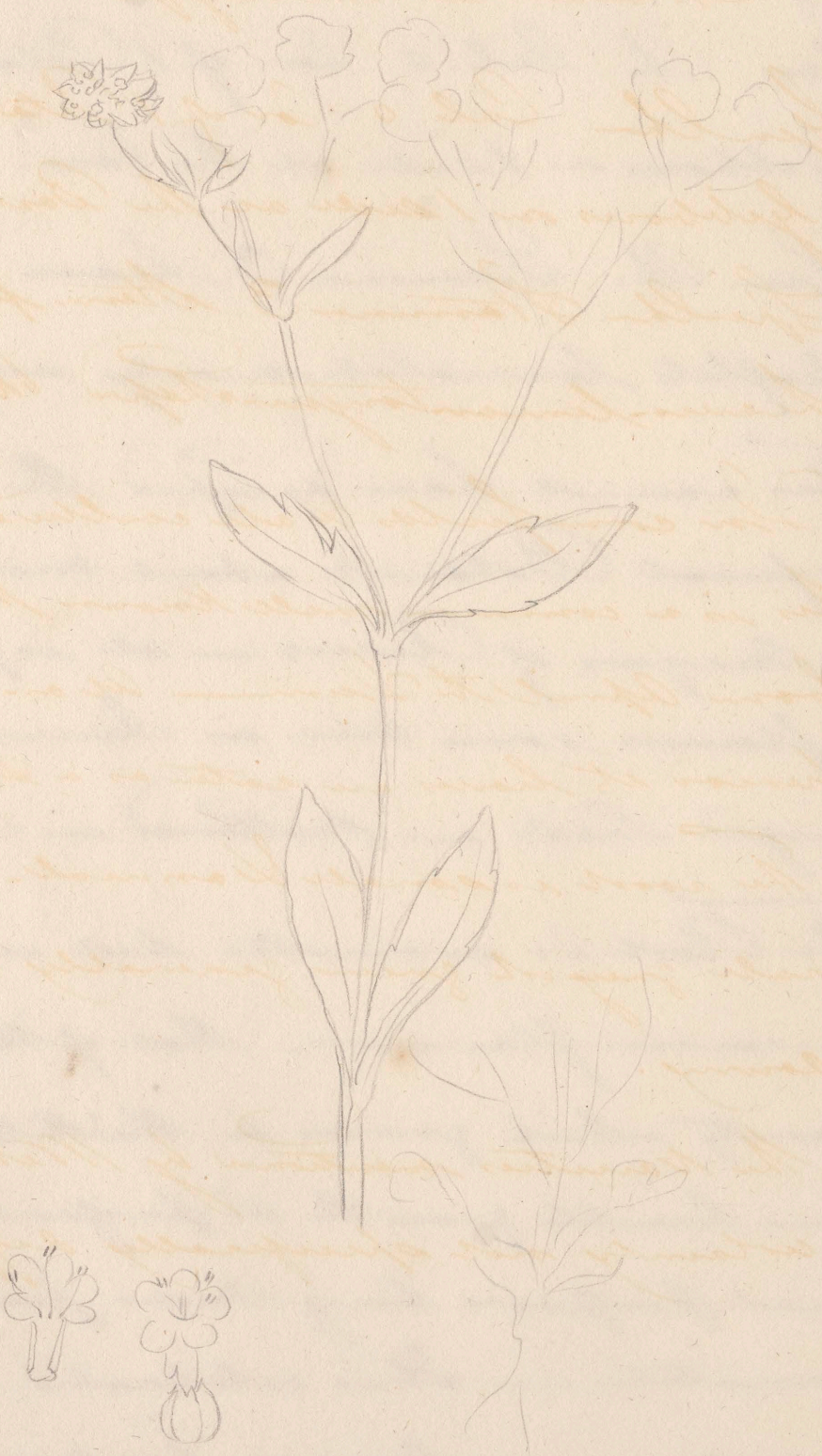
Triandria Monogynia

Gen. Ch. Cal. o. Cor. of 1 Petal superior
gibbous on 1 side at the base. Seed 1

Spec. Ch. Stamina 3. Leaves all pinnated
leaflets lanceolate nearly uniform

This cannot have escaped the most cursory Botanist about moist Hedges &
the Margins of Rivers — it is perennial
& flowers some time in June — the feathery
fringed Seeds are scattered in July

The Root is aromatic but with a very
nauseous flavour — That of the Mountain
Variety which grows in Thickets is of a
more humble growth & preferred for Me-
dicinal purposes being more pungent &
aromatic — It is celebrated not unjust-
ly in Nervous Diseases particularly hyste-
ric & epileptic Complaints



Valeriana locusta. Corn Sallad or Lambs Lettuce

Triandria Monogynia

Gen. Ch. Cal. 0. Cor. of 1 Petal Super. Gibbous or 1 side at the Base. Sed 1 Spec. Ch. Stamina 3. Stem forked Leaves-lanciat tongue-shaped blunt

In corn fields & all cultivated Grounds this is a common well known Weed flow. from April to June — At an earlier period its leaves are eaten as a Sallad

The root is small & annual. Herb of a pale grey ish green generally a little downy.

The Varieties mentioned by Withering are certainly not specifically different

Crocus nudiflorus. Naked flowering Crocus

Triandria Monogynia

Gen. Ch. Cor. in 6 Divisions regular. Stigmas convoluted

Spec. Ch. Sheath of 1 leaf radical. Tube of the Corolla very long leafless. Stigma of three deeply laciniated Segments enclosed within the flower

This Crocus grows in the greatest profusion between Nottingham Castle & the River Trent in Meadows whose Soil is naturally sandy but from the overflowing of the River is converted into nearly equal parts of Sand & Clay. Here this plant enamels several Acres of Ground every Autumn & has been mistaken by Strangers for a Crop of Water. The flowers perfectly destitute of leaves are in perfection early in October & fade before the End of the Month

The leaves do not begin to appear till some time in Dec.r & are more erect than those of the other Species their margin scarcely revolute colour paler & their Ends not decayed — The Stigma is enclosed within the Flower as in C. vernus but differs widely from that & the Autumnales having its segments deeply divided into 7 to 12 generally by narrow linear lobes. The seeds ripen in May — These Characters & the time of flowering are found constant in Plants cultivated for a number of years —

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Jan.y 1.1793 Published by J.t Sowerby London.

CROCUS vernus.

Spring Crocus.

TRIANDRIA Monogynia.

GEN. CHAR. *Cor.* in 6 diviſions, regular. *Stigmas* convoluted.

SPEC. CHAR. Sheath of one leaf, radical. Tube of the corolla very long. Stigma in three ſhort wedge-ſhaped lobes, encloſed within the flower.

SYN. Crocus vernus. *Mart. Fl. Ruſt. t.* 59.

C. ſativus β. *Linn. Sp. Pl.* 50. *Hudſ. Fl. An.* 13. *With. Bot. Arr.* 38.

C. vernalis cæruleus. *Deering Nottingh.* 60.

THIS wild ſpecimen of the Spring, or Garden, Crocus was gathered by Mrs. Sherbrooke of Arnold near Nottingham, March 15th laſt, in the ſame meadows where Dr. Deering obſerved it 60 or 70 years ago, and which are ſtill rendered quite purple by theſe flowers every ſpring; ſo that this ſpecies at leaſt appears to have a better right to be reckoned an Engliſh plant than many others univerſally acknowledged, as the Rev. Mr. Wood, F. L. S. to whom we are indebted for the communication, remarks. Profeſſor Martyn mentions having ſeen it at Batterſea, near the mill, in conſiderable quantity, above 40 years ago.

It differs from the Saffron Crocus in having broader leaves, with flatter or leſs revolute edges; yet that difference is not ſo conſtant as the great one of the ſtigmas, which in the plant before us are comparatively very little divided, the ſegments wedge-ſhaped, much and unequally notched, erect (not hanging out of the flower), of a paler colour, and quite deſtitute of the ſmell and cordial qualities of Saffron.—Their times of flowering are alſo widely different, this being one of the earlieſt ſpring plants, as every body knows by the numerous purple, yellow, and white varieties growing in every garden; the other is quite an autumnal flower, and theſe differences are permanent under every mode of culture hitherto tried.

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Sept.r 1796 Published by J.t Sowerby London

CROCUS autumnalis.

Saffron, or Autumnal Crocus.

TRIANDRIA Monogynia.

GEN. CHAR. *Cor.* in 6 diviſions, regular. *Stigmas* convoluted.

SPEC. CHAR. Sheath of one leaf, radical. Tube of the corolla very long. Stigma in three deep linear diviſions hanging out of the flower.

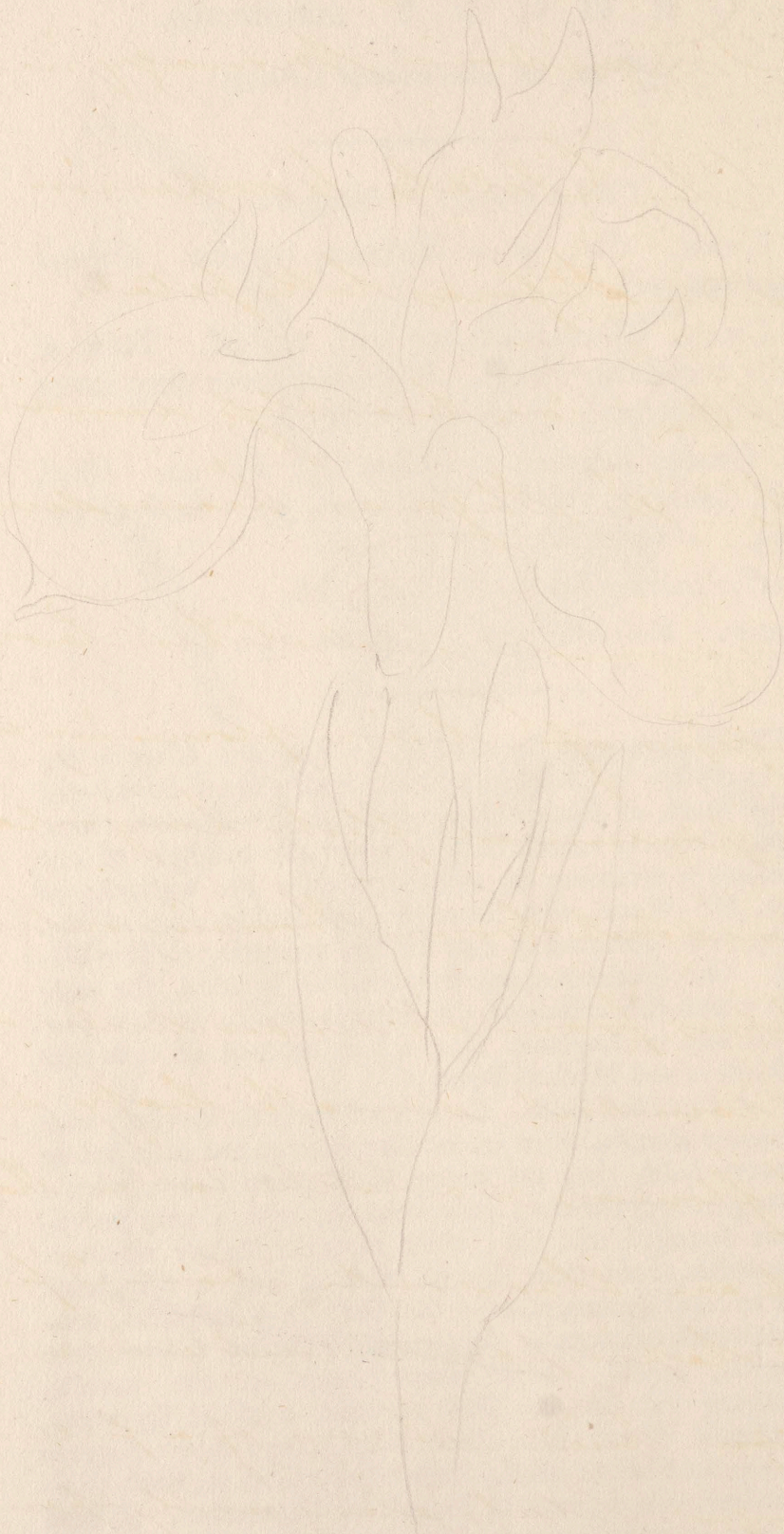
SYN. Crocus ſativus *α. Linn. Sp. Pl.* 50. *Hudſ. Fl. An.* 13. *With. Bot. Arr.* 37. *Relh. Cant.* 15. *Woodv. Med. Bot. t.* 176.

C. officinalis. *Mart. Fl. Ruſt. t.* 58.

Crocus. *Raii Syn.* 374. *Ger. em.* 151.

SAFFRON has very little right, as Profeſſor Martyn obſerves, to a place in the Britiſh Flora, having been introduced from the ſouth of Europe for culture as a medicinal plant. We ſhould ſcarcely indeed have followed the example of our predeceſſors in retaining it, were it not for the authority of the Rev. Mr. Wood, who found it about Halifax, and of Mr. Whately, who obſerved it near Derby, according to Dr. Withering. Our ſpecimen came from Saffron Walden, the only place in which this article of the materia medica is now produced for ſale in England. See a full account of it in the Flora Ruſtica and Medical Botany.

Root a depreſſed bulb. Leaves all radical, inveſted with membranous ſheaths, from which they emerge but little before the flowers fade; they are linear, dark green above, with a white longitudinal furrow; pale beneath, with a very prominent but flattened mid rib; their margins ſlightly revolute. Flowers ſeſſile at the root, though with ſo long a cylindrical tube as to ſeem pedunculated; the limb in 6 elliptical, concave, rich-purple, regular ſegments. Stamina ſhorter than the corolla, erect. Style about equal to the corolla, but hanging out on one ſide between 2 of its ſegments, being deeply cloven into three deep-orange linear ſtigmas (which are the Saffron itſelf), their edges rolled in, their ſummits notched.—It flowers in Auguſt or September. A kind of tap-root frequently grows from the bulb, which is conſidered by the cultivators as a diſeaſe.



Iris Pseud-acorus – Yellow Water Iris

Triandria Monogynia

Gen Ch. Petals 6 superior alternately
reflexed – Stigmas like petals

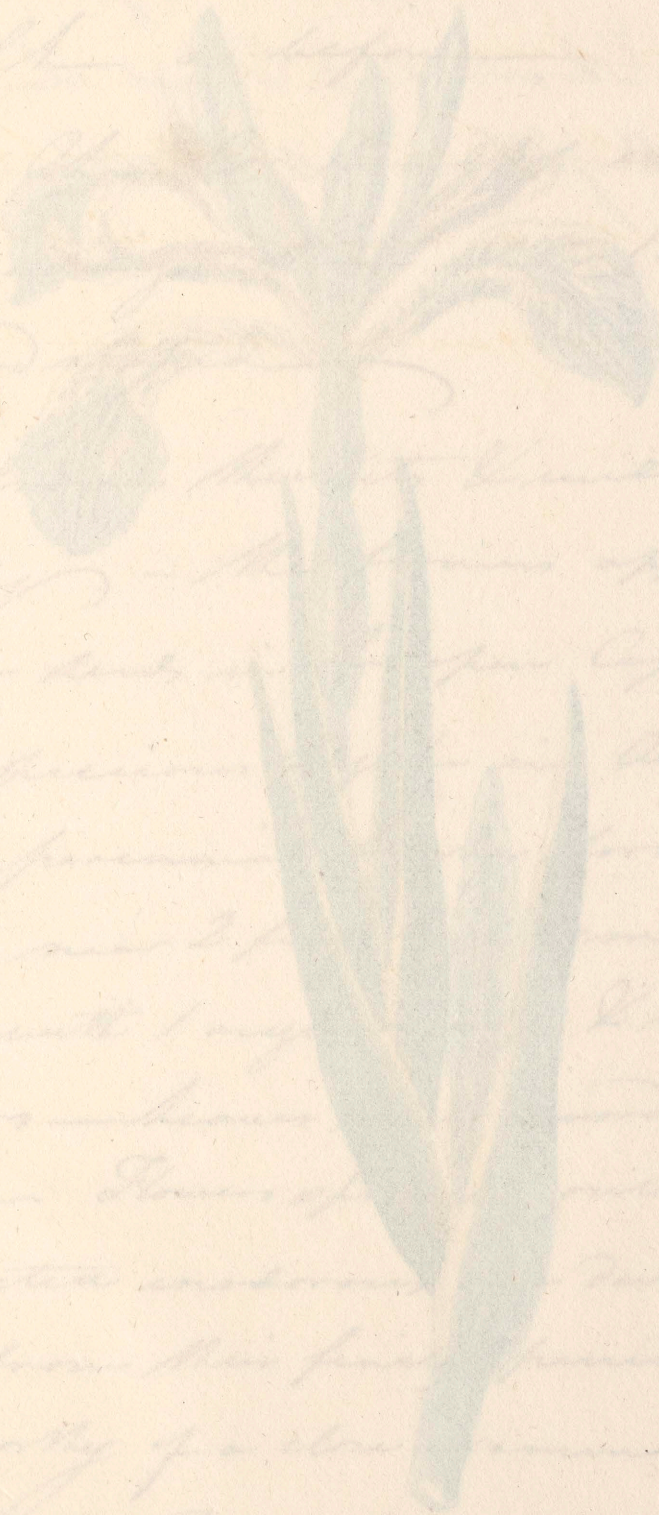
Spec Ch – Cor. beardless inner Petals
less than the Stigmas – leaves sword shaped

Very common in ditches Pools & the
margins of Rivers flowering in July.
Root perennial fleshy horizontal depressed
of a reddish brown throwing out numerous
long fibres from its under side Stem up-
right roundish smooth hairy bearing from
3 to 6 flowers & a little taller than the leaves
which are also erect about 3 feet high
sword shaped pointed ribbed inclining to a
glaucous hue – Flowers of a pale lemon Colr
the larger Petals elegantly penciled with
a fine Purple – their termination roundish
broad dependant – The inner petals are
erect narrow blunt much shorter than
the arched fringed & cloven-petal like Stig
mas which constitute the Singular Character

of this Genus & under which the Authors
are sheltered — Ray mentions a Variety
which is not very uncommon with pale
flowers & another with white ones Both
we have never seen —

A Shrub of the first Rank which is a
cried & violently astringent being held betw
the teeth will very quickly remove some ki
of tooth ache —

Iris 3



Iris fatidissima — Stinking Iris

Triandria Monogynia

Gen. Ch — as before —

Spe. Ch — Cor. beardless inner Petals spreading Stem with 1 ugh leaves sword shaped —

In groves thickets & under hedges but rarely — The flowers appear in May & the seeds in the open Capsules make a conspicuous figure in Autumn

Root perennial fleshy forming thick tufts Stems near 2 feet high smooth leafy roundish with 1 angle or edge & bearing several flowers — Leaves erect sword shaped deep green Flowers springing out of large sheathing Bracteæ inodorous of a dull pale purple but from their finely pencilled veins not unworthy of a close examination — Their inner petals spread nearly as much as the outer ones & are about as large as the Stigmas which are cloven but scarcely fringed — The Capsules are large & inflated green externally white within containing several

globular polished deep orange cold seeds

The leaves when bruised have a very pec
liar offensive smell yet this having som
resemblance to the effluvia of roast beef
the name of Roast beef Plant has been a
lied as a title of honour to this Iris

Schanus-mariscus — Prickly Bog Rush

Triandria Monogynia

Gen. Ch. ——

Spec. Ch. Stem round — leaves prickly at the margin & keel ——

Habitat Bogs Moors in several parts of England but not common ——

It is said to be peculiarly abundant about Cambridge it is perenl. & flowers throughs. July & augst ——

Oct.1.1809 Published by J. Sowerby.

SCHŒNUS compreſſus.

Compreſſed Bog-ruſh.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, cluſtered; the outer ones barren. *Cor.* none. *Seed* 1, roundiſh, among the glumes.

SPEC. CHAR. Stem roundiſh, naked. Spike two-ranked, ſhorter than the bractea, which is ſimple. Spikelets many-flowered. Leaves flat.

SYN. Schœnus compreſſus. *Linn. Sp. Pl.* 65. *Sm. Fl. Brit.* 44. *Hudſ.* 15. *With.* 80. *Hull.* 12. *Relh.* 17. *Dickſ. H. Sicc. faſc.* 3. 2.

Gramen cyperoides, ſpicâ ſimplici compreſsâ diſtichâ. *Raii Syn.* 425.

A NATIVE of turfy bogs, and ſpongy meadows, which ſhould ſeem to be leſs rare than it has generally been ſuppoſed; in Norfolk at leaſt it is not at all uncommon, flowering in July, nor are its bright-cheſnut poliſhed ſpikes eaſily overlooked, if the ſurrounding herbage does not conceal them from our view.

The root is a little creeping. Stems ſimple, ſcarcely a foot high, upright, roundiſh, ſmooth, naked except at the very baſe. Leaves 3 or 4 inveſting the bottom of the ſtem, ſheathing, alternate, flat, with a projecting nerve, of a graſs green, ſmooth except at the margin. Spike ſolitary, terminal, compoſed of ſeveral ſpikelets alternately diſpoſed in 2 ranks, the lower ones a little remote, and the loweſt ſubtended by a bractea, which commonly exceeds the general ſpike in length, and is triangular and rough at the end. The outer glumes are barren; each of the reſt ſerves as a calyx to each floret. Stamina 3. Style ſimple, with a downy cloven ſtigma. Seed inveſted at the baſe with ſeveral rough briſtles, ſhowing a near approach to the genus *Eriophorum*.

This is certainly what Linnæus originally meant for his *Carex uliginoſa*, he having neglected to examine the fructification, truſting probably to the reſemblance of the plant to *C. arenaria*, &c.

Schanus rufus – Brown Bog Rush

Triandria Monogynia

Gen Ch – as before

Spec Ch – Stem round naked Spike 2 nonked. longer than the calicine glume Involucrum Spikelets of few flowers Leaves channeled

This S. unknown to Linnaeus has been found in Moors near the coast of several parts of Scotland & the Hebrides – It is found flowering in July

Schanus 4

Schenus albus White headed Bogrush

Triandria monogynia

Gen Ch Glumes chaffy clustered the outer ones barren Cor 0. Seed 1 roundish among the glumes

Spec Ch. Stem triangular chaffy flowers clustered leaves bristle shaped. Seed with 10 Bristles at the base

This pretty G. is found on turfy Bogs. but is rare except in Mountainous Countries

It flowers in July & Aug. & is perennial

J.T. Sowerby, del. Aug.t 1 1793

SCIRPUS paluſtris.

Marſh Club-ruſh.

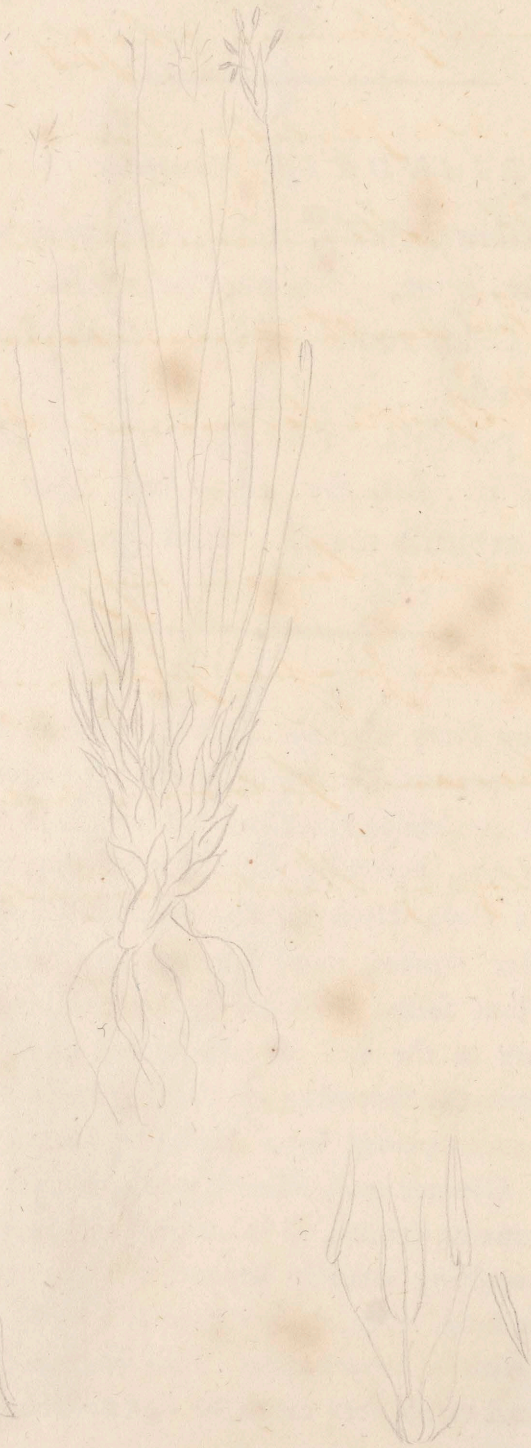
TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated every way, all fertile. *Cor.* none. *Seed* one, beardleſs.

SPEC. CHAR. Culm round, naked. Spike ſomewhat oval, terminal.

SYN. Scirpus paluſtris. *Linn. Sp. Pl.* 70. *Hudſ. Fl. An.* 17. *With. Bot. Arr.* 46. *Relh. Cant.* 18.
Sc. Equiſeti capitulo majori. *Raii Syn.* 429.

VERY common every where in ditches, marſhes, and rivulets. The root is perennial, creeping, throwing out many yellowiſh fibres, and producing thick tufts of upright, cylindrical, ſmooth, naked ſtems, becoming ſtriated when dry, clothed at their baſe with a cloſe, blunt ſheath, which is inveſted with two or three other ſhorter, more membranous, and reddiſh ſheaths. The plant ſeems perfectly deſtitute of leaves. The ſpikes are ſolitary at the end of each ſtem, erect, oblong, appearing oval from the ſpreading of their ſcales in flowering, and ſometimes accompanied by a ſmall, membranous, cloſe-preſſed bractea. Glumes oval, ſolitary, acute, with a membranous edge. Filaments ſlender, as in all graſſy plants; antheræ large, yellow, projecting entirely beyond the glumes. Style ſhort, with three long, taper, downy ſtigmas. Seed roundiſh, ſmooth, yellow, with a brown apex. This Scirpus flowers in June and July, and varies very much in ſize occaſionally.



Scirpus caespitosus — Scaly stalk'd Club Rush

Triandria Monogynia

Gen. Ch. — Glumes chaffy. imbricated every Way all fertile — Cor 0. Seed 1.

Spec. Ch. Stem round striated sheathed & invested with numerous scales at the base — Spike terminal Outer glumes longest.

Common on barren tufty Heaths among long & coarse Grasses flowering in July Root perenn.l fibrous not creeping of many Long thick simple fibres —

749.

Published by J. & A. Arch, Feb. 1, 1803.

SCIRPUS acicularis.

Leaſt Club-ruſh.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated every way, all fertile. *Cor.* none. *Seed* 1.

SPEC. CHAR. Stem with 4 angles, with a blunt ſheath at its baſe. Spike ovate, acute, terminal, ſolitary. Outer glumes the largeſt.

SYN. Scirpus acicularis. *Linn. Sp. Pl.* 71. *Sm. Fl. Brit.* 51. *Hudſ.* 18. *Sibth.* 23. *Dickſ. H. Sicc. faſc.* 14. 1.

S. minimus, capitulis equiſeti. *Raii Syn.* 429.

Cyperus acicularis. *With.* 78. *Hull.* 13.

THIS minute *Scirpus* grows in damp heathy places, where water has ſtagnated during the winter, but is very rarely met with. Our ſpecimen came from Wanſtead Park, Eſſex, in the middle of Auguſt.

Root fibrous, perennial. Stems numerous, ſimple, from 2 to 4 inches high, very ſlender, erect, roundiſh when freſh, but marked with 4 ſmooth angles, which in drying become very conſpicuous. The baſe is inveſted with a tight blunt beardleſs ſheath. Leaves few, ſhorter than the ſtems, obſoletely quadrangular, being flat above, and ſomewhat rounded beneath. Spike ſmall, ſolitary, terminal, ovate, acute, compoſed of 5 or 6 flowers, whoſe glumes are truly imbricated in every direction, not two-ranked, ſo that it properly belongs to this genus, and by no means, either in character or habit, to *Cyperus*. Each glume is ſharply keeled, pointed; the margin membranous; the 2 lowermoſt are rather the largeſt, and ſometimes barren. Seed elliptical, without any briſtles at the baſe.

Nov.r 1794. Published by J.t Sowerby Lond.n

SCIRPUS fluitans.

Floating Club-ruſh.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated every way, all fertile. *Cor.* none. *Seed* 1, beardleſs.

SPEC. CHAR. Flower-ſtalks round, naked, alternate. Stem leafy, flaccid.

SYN. Scirpus fluitans. *Linn. Sp. Pl.* 71. *Hudſ. Fl. An.* 18. *With. Bot. Arr.* 48. *Sibth. Oxon.* 23. Sc. Equiſeti capitulo minori. *Raii Syn.* 431.

THIS occurs in ditches, and in little pools upon graſſy commons and heaths, the water of which is apt to be dried up in ſummer, but is by no means a common ſpecies. It may be found on St. Faith's bogs near Norwich, on Hounſlow Heath, and Epping Foreſt, flowering in June and July.

The root is perennial, and the ſtems throw out many long radicles as they ſtretch in a floating poſition many together over the ſurface of the water. The leaves are alternate, ſheathing at their baſe, and then much divaricated, partly floating, partly above the water. The ſpikes ſtand erect above the ſurface, and, though ſmall, are conſpicuous by their number and whitiſh colour. Each conſiſts of but few flowers, whoſe glumes are not much ſhorter than the ſtamina, and the two lowermoſt are particularly large, ſo as to appear like bracteæ; but they have always parts of fructification belonging to them. The ſtigmata are only two in number.

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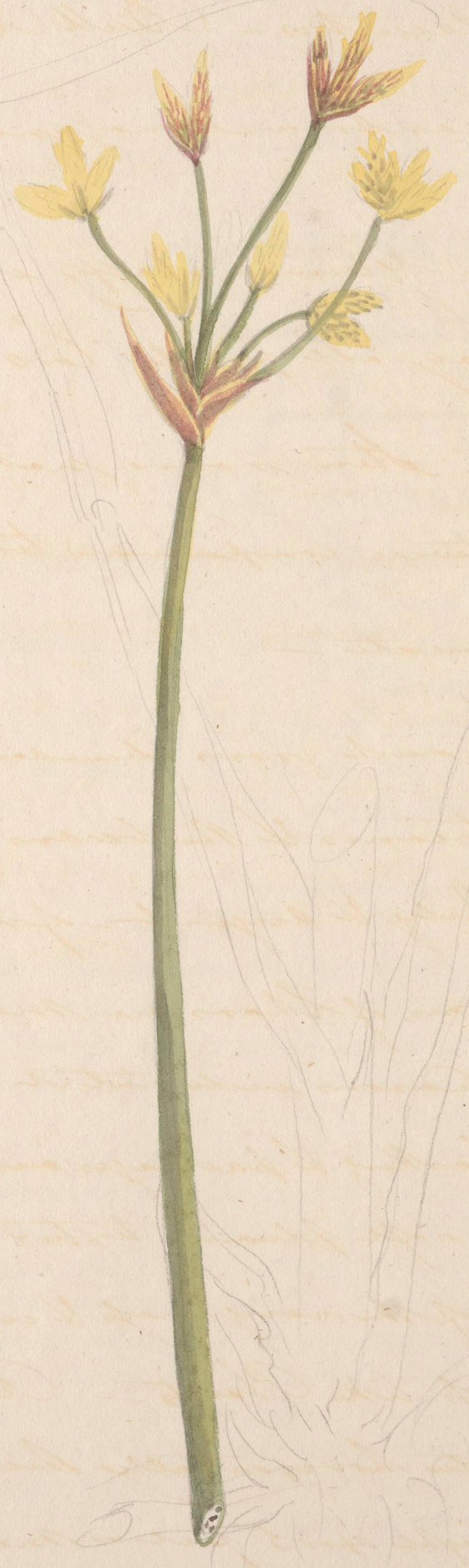


Scirpus lacustris — Bull Rush

Triandria Monogynia

Gen. Ch. — Glumes chaffy imbricated every way all fertile. Cor 0. Seed 1. beardless

Spec. Ch. — Stem round naked Panicle cymose twice compounded terminal

Spikelets ovate —

The bull rush grows abundantly in clear ditches streams & the borders of lakes flowering in July & August — of its stems the rush Bottoms of Chairs are made — Cattle in hard seasons will eat it & it is also used for stacking & packages occasionally being of a soft pliant texture totally destitute of the roughness & cutting Edges of many grass like Plants — Roots creeping under Water horizontally thick & strong Stem upright 4 or 5 feet or more in height perennial simple naked round smooth dark green very spongy & full of watery Juice within clothed at the base with se-

veral sheathing scales — Panicle doubly
compounded in a Cyme like form terminal
spreading its branches very unequal com-
pressed — fringed towards their extremities
sheathed at their base with several unequa
lanceolate chaffy Bractea — Spikes green
by 2 or 3 together clustered ovate brown
with a shining rusty tinge — Glumes conca
Keled pointed fringed sometimes down
but with a serrated keel in the cleft
Stamina not any by. Stigma 3 cleft
Seed flat on one side convex on the o
with 5 or 6 short rough bristles at the base
as in S. maritimus

Scorpio 5

Scirpus maritimus. Salt marsh
Club Rush

Triandria Monogynia

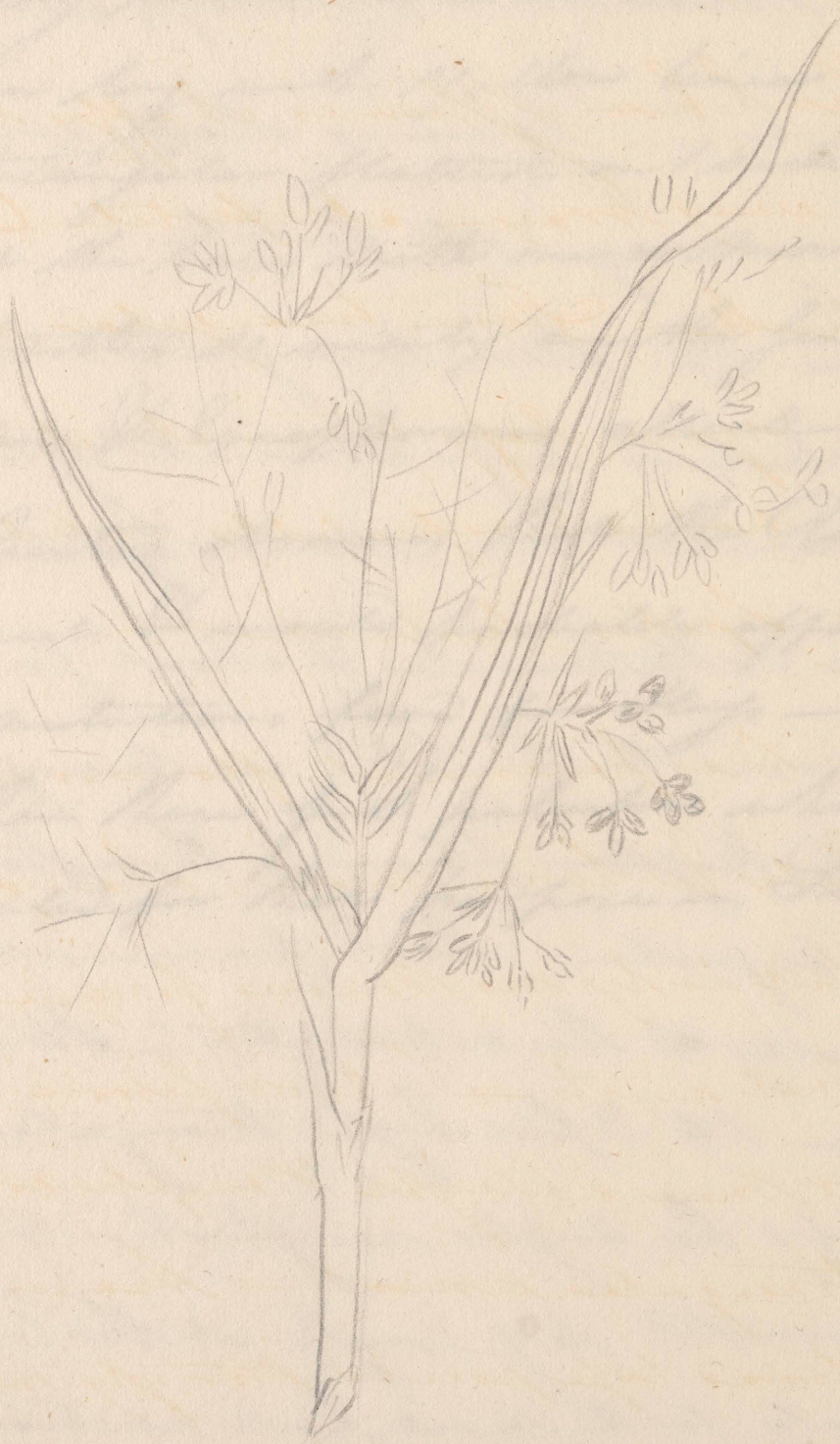
Gen. Ch. Glumes chaffy imbricated
every way all fertile

Spec. Ch. Stem triangular. Panicle
clustered leafy terminal Glumes
pointed torn into 3 segments

In Salt marshes & about great Rivers
exposed to the tide in many diff.t parts
of the Kingdom flowering throughout July
& August. Root perennial creeping
knotty at the extremities. Stems erect
from 1 to 3 feet high triangular striated
keeled the angles roughish. Leaves linear
carinated long rough at the edge. Sud-
denly for the most part contracted to a
sharp point the lower one sheathing &
alternate those under the panicle deficile
& very unequal in length. Spikes
forming a panicle among the upper leaves
more or less numerous deficile or pedun-

culated. ovate Chestnut col. sometimes
lengthened out into a very long cylindric
Spikes Glumes shining ovate keeled
ribbed long pointed torn at the summ
Stamina long with yellow linear anth
Seeds triangular flattest on 1 side fu
nished at the base with one or more ob
rough bristles so nearly are the Genera
of Scirpus & Eriophorum allied

Mr Curtis observes that the Roots
very sweet & would probably afford
good & nutritious food for Hogs — bei
longer than those of S. palustris which
are collected for that purpose in Swee



Scirpus Sylvaticus – Wood Club Rush

Triandria Monogynia

Culm – Glumes chaffy entire
every way – all fertile Cor. o. Seed 1

Spike – Stem triangular hairy.

Cyme. hairy terminal; its staths
naked & repeatedly subdivided

Spikes clustered

It is perennial flowers in June &
July & loves moist shady Situations
but is by no means frequently to be
met with – Root fibrous Stem 3 ft
or more in height Simple erect hairy
triangular smooth – Leaves linear
broad taper pointed strongly ribbed
smooth except the margin of the upper
most – the radical ones numerous forming
a dense tuft. the other alternate – Pa-
nicle cyme spreading repeatedly bran-
ched. the staths rough each accompanied

by a sheathing Bracted at its base —
Spikes terminal most of them clustered
small ovate — Glumes ovate entire —
Chestnut Keel'd — green with a tinge
of brown towards the extremity — Sta
mina slender. Style deeply 3 cleft
Seed orbicular with 3 angles compressed
white smooth — its base enveloped
with 6 or 8 Bristles twice as long as the
Seed after arrived at Maturity —

Eriophorum vaginatum — Hare tail

Cotton Grass

Triandria Monogynia

Generic character —

Specific — Stem round invested with
a tubular sheath — Spike solitary
Glumes membranous —

This is not unfrequently seen on the
high barren heathy moors of the North
of England but it is rather remarkable
that so mountainous a Plant should have
been found near Crayton & between Lan-
ston & Lyme — Its silvery blue flowering
Spikes with the Yellow Anthers a little
projecting between the Scales are observa-
ble in March but the Plant becomes
much more conspicuous in May & June
when the Snow White Chevelure of hair that
encompass the Seed form a dense oval
tuft not unaptly compared to a hares tail

The roots are perennial - Stems erect stri
clothed with 1 or 2 cylindrical swelling
membranous blunt sheaths often tipp
with a small point from entrance oppos
ite the brutal Base — The leaves are
strait linear somewhat triangular smoo
upright sheathing at their base —
Sheep are said to be very fond of the

Exophoria

Eriophorum polystachion - Broad-
leaved Cotton Grass

Triandria Monogynia

Gen. Ch. Glumes chaffy imbricated
on all sides. Cor 0. Seed 1. invested
with very long hairs.

Spec Ch. Stem round leaves flat.
Spikes several on flower stalks

Observed by Mr Dickson on Bogs in
Northamptonshire &c — It is perennial
flowering in April. & bearing its white
tufts of seed from June to Aug.st or Sept.r
Root fibrous not creeping. Stem erect
2 feet high round striated smooth leafy
Leaves alternate much shorter than the
stem flat slightly keeled linear lanceo-
olate smooth towards the top more a-
cutely keeled. sheathing at the base
Spikes several ovate on stalks which
are sometimes branched as in our figure
but more frequently simple. Glumes
lanceolate filmy. After flowering the

flower stalks are lengthened out & pendu
the white hairy which invest the Seed a
grow to a considerable length — tho less
than in the more common Species —
The Down is used in poor mountain
Countries for stuffing pillows. but the
is a prevailing opinion yet not bein
wholesome to sleep on — It is too brittl
to be manufactured into thread of any
Kind

Eriophorum angustifolium. C.C.G

Triandria Monogynia

Gen. Ch. Glumes Chaffy imbricated on all sides. Cor. 0. Seed invested with very long hairs

Spec. Ch. Stem round. Leaves channeled triangular at the tip. Spikes several on flower stalks.

Very common & plentiful on turfy Bogs flowering in April & its brilliant white tufts look throughout the Summer like feathers scattered over the Country.

Root creeping. Stem round more slender than the last striated smooth — Leaves but little shorter than the Stem semi cylindrical channeled smooth narrower than in E. polystachion sheathing at the base terminating in a triangular point the floral ones 2 or 3 till linear flat various in length — Spikes from 3 to 5 ovate on stalks of different lengths but always simple — Glumes brown with a pelmy Edge

after flowering the Spikes are partly erect, partly drooping but by no means pendent & the white hairs are protruded to at least twice the length of the Husk last described which renders this much more conspicuous & handsome—

Cattle feed readily on the leaves of this Grass in the Northern Counties early in the Spring, before other Herbage is sufficiently advanced but in more favourable Climates it is not worth the Farmers notice.

311.

March 1st 1796 Published by Jas Sowerby London.

ERIOPHORUM alpinum.

Alpine Cotton-graſs.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated on all ſides. *Cor.* none. *Seed* 1, inveſted with very long hairs.

SPEC. CHAR. Stem naked, angular. Spike ſolitary, erect, ſhorter than the hair of the ſeeds.

SYN. Eriophorum alpinum. *Linn. Sp. Pl.* 77. *Flo. Lapp. Ed.* 2. 20. *Tranſ. of Linn. Soc. V.* 2. 290 & 356. *Fl. Dan. t.* 620. *Dickſ. Hort. Sicc. Faſc.* 8. 3.

Juncus alpinus bombycinus. *Scheuchz. Prod.* 27. *t.* 8. *f.* 1.

FIRST diſcovered in Britain by Mr. Brown and Mr. George Don, in a turfy bog 3 miles eaſt of Forfar, in the ſhire of Angus, Scotland.

We are obliged for wild ſpecimens to Mr. John Mackay of Edinburgh, a moſt diligent and ſkilful inveſtigator of the vegetable kingdom, by whoſe communications we have often been enriched. It grows in alpine ſituations, flowering about July, and has hitherto been announced as a native of our iſland, in the 2d volume of the Linn. Society's Tranſactions only.

Root perennial, creeping horizontally among bog-earth and ſand, with many fibrous radicles. Leaves few, linear, rough on the edges, obtuſe, ſheathing at their baſe, erect, ſometimes 3 or 4 together on a barren branch. Stems ſeveral, erect, much taller than the leaves, cloſe together, with 3 and ſometimes 4 rough angles, ſtriated, their baſe enveloped in one or more ſhort ſheathing leaves, and a few tubular, membranous, bluntly acuminated ſcales, ſeeming like the rudiments of leaves. Spike ſolitary, terminal, erect, oval, ſmall, of ſeveral ovate, yellowiſh brown, ſharply keeled ſcales, the lowermoſt tipped with a leafy point. Seed ſharply triangular, clothed with long, not very numerous, hairs, which originate from its baſe, and riſe much above the top of the ſtyle. Their extreme whiteneſs and their delicate texture give an elegant appearance to the plant, though it boaſts none of thoſe gaudy colours requiſite to excite the attention of many, who really fancy themſelves perſons of taſte and admirers of Nature, but who are as inadequate judges of their own talents, as of the univerſal elegance and wiſdom of the creation around them.

Nardus

NARDUS ſtricta.

Mat-graſs.

TRIANDRIA Monogynia.

GEN. CHAR. *Cal.* none. *Corolla* of 2 valves.

SPEC. CHAR. Spike ſlender, erect, the flowers all pointing one way.

SYN. Nardus ſtricta. *Linn. Sp. Pl.* 77. *Hudſ. Fl. An.* 22. *With. Bot. Arr.* 54. *Relh. Cant.* 21. *Sibth. Ox.* 33.

Gramen ſparteum junciſolium. *Raii Syn.* 393.

THIS graſs may be obſerved on ſandy heaths in moſt parts of England, eſpecially in moiſt or mooriſh ſpots, where it forms thick tufts of rigid ruſh-like leaves, which remain through winter

——" bleaching in the northern blaſt."

The roots are perennial, fibrous, ſtrong and downy. Leaves linear, very narrow, acute, ſtriated, rough in the margin, very harſh and rigid, ſuddenly divaricating from their broad ſheathing ſtriated baſe, which envelops the bottom of the ſtalk, and is itſelf enveloped with ſcales externally, and crowned at the divarication with the uſual ſtipula of graſſes. Each ſtalk ſupports one leaf, and is erect, ſtriated, rough, of the ſame texture and harſhneſs as the leaves, and a little longer, bearing a very ſlender ſpike of equally ſlender flowers, alternately placed in two rows, but all pointing one way, though very little divaricated at any time from the ſtalk, and both before and after flowering clapped cloſe to it. Valves of the calyx unequal in length, purpliſh and rough in the margin. Filaments a little exceeding the longeſt valve, tipped with nearly linear antheræ. Germen ſmall. Style ſolitary, ſlender, downy.

The Mat-graſs flowers in May, June or later. Of its agricultural uſes little can be ſaid, for cattle in general refuſe it; and though mats or baſkets might be made of it, we are ſupplied from Spain with better graſſes for thoſe purpoſes, particularly *Stipa tenaciſſima*.

Dec.1795 Published by Jas Sowerby London.

Anthoxanthum

Anthoxanthum odoratum. Sweet scented

Vernal Grass

Diandria Digynia

Gen Ch Cal a husk of 2 valves single flowered Cor of 2 valves awned Seed 1

Spec Ch Spike ovate oblong flowers longer than their awns standing on short stalks

This is the only British Grass except Bro. diandrous & Carex atrata that has fewer than 3 Stamina by which mark this is easily known — it grows frequently & plentifully in Pastures flowering in May & June & is supposed to have a principal share in imparting the delightful fragrance to new mown Hay for when partially dried it exhales a very sweet odour & even in a recent State its stalks if chewed are found highly aromatic tasting not unlike those of fresh Lavender It is esteemed a good food for Cattle in general

Phalaris phleoides
Cats tail Canary Grass

Triandria Digynia

Gen. Ch. Cal. of 2 carinated equal Valves longer than the Corolla. single flowered

Spec. Ch. Panicle nearly cylindrical in the form of a Spike. Glumes linear lanceolate smoothish their inner margin abrupt Stem simple

A native of high sandy Countries.

Root fibrous perennial crowned with tufts of spreading glaucous leaves which endure the Winter. Straw simple generally solitary most hoary below round smooth purple & shining above a foot & a half high. Leaves sheathing linear lanceolate rough at the Edge their Sheaths scarcely inflated roughish. Panicle terminal solitary erect dense nearly cylindrical

t exactly like a Spike but when bent o one s
it separates into lobes or Branches of several fl
ers each. Cal. nearly linear somewhat cons
ted near the top purplish. Pe Valves linear lan
ceolate compressed pointed 3 nerved a little de
cated at the top & furnish'd with a white membr
nous margin which at its summit is in some
degree abrupt approaching to the structure of a
Phleum but this Species cannot be considered
as such on Act of its close affinity to Phalar
aranaria t 222. from which it differs howeve
as a Species in having a perennial Root. a
branched or panicled Spike glumes hispidu
ly & completely ciliated & lanceolate / not ab
rupt or erenate Petals.

Nov.1 1794 Published by J. Sowerby London

PHALARIS arenaria.

Sea Canary-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of two carinated equal valves, longer than the corolla, ſingle flowered.

SPEC. CHAR. Spike ovato-lanceolate. Glumes ciliated. Stems ſeveral.

SYN. Phalaris arenaria *Hudſ. Fl. An.* 23.
Ph. phleoides β. *Ait. Hort. Kew. v.* 1. 86.
Phleum arenarium. *Linn. Sp. Pl.* 88. *With. Bot. Arr.* 62.
Gramen typhinum maritimum minus. *Raii Syn.* 398.

FOUND every where about ſandy ſea-ſhores and the neighbouring fields; it has even been obſerved upon Swaffham heath by James Crowe Eſq. and on that of Newmarket by the Rev. Mr. Hemſted, who favoured us with this ſpecimen. On the ſea-coaſt the plant is ſeldom ſo luxuriant. It is an annual, and flowers in June.

The root is fibrous, and downy, like the graſs laſt deſcribed. Stems ſeveral, dividing from the crown of the root or a little higher as in wheat, ſometimes bent at the joints, clothed with leaves, whoſe edge is a little rough, their ſheaths long, inflated, ſtriated and ſmooth. The flower-ſtalk commonly very little exceeds the uppermoſt leaf, and is terminated by an upright rigid ſpike, ſwelling in the middle, conſiſting of a great number of erect thick-ſet flowers The calyx is green, with white keel ribs and margin; the valves lanceolate, gradually tapering to a ſharp point, and by no means lopped or truncated as in the genus *Phleum;* their keel, and ſometimes their margin, is ciliated with white hairs. Corolla of two ſhort, crenated, ſtriated petals.

The ciliated valves diſtinguiſh this plant from Phalaris phleoides of Linnæus, certainly of the ſame genus, though its different habit and appearance (which we hope one day to have an opportunity of exhibiting) will not allow us to agree with the *Hortus Kewenſis* in making them the ſame ſpecies. Not one of our Engliſh writers has well underſtood theſe two graſſes, nor Phleum paniculatum of Hudſon, which is very diſtinct from both.

Phalaris 1

[222]

PHALARIS arcuata.

See Canary-grass.

PHALARIS Digyna.

CHAR. Cal. of two unequal equal valves, longer than the corolla, single flowered. Glumes cuneated. Seeds lanceolate. Glumes cuneated. Seeds lanceolate. Glumes cuneated. Seeds lanceolate.

Ph. arundinacea. Linn. Sp. Pl. 83. Wild. Ber. 223. Fl. Dan. 598.

Common ryphion, or fattening grass. Red Top. Eng. Bot. 598.

COMMON every where about hedges, ditches, and the borders of standing ponds; it has been observed upon Swaffham Heath by James Crowe, Esq. and on the edge of Newmarket Heath by the Rev. Mr. Hemsted, who informs us with that Gerarde, Cambridge, has called the plant a Lolium perenne. It is an annual, flowers in June.

The roots is fibrous, and decays before the perfection of the root or stalk. Stems several, they long, from the crown of the root or a little above, as in perenne, sometimes but rarely knotted with joints, whole edge thin, smooth, striated and bending very much. Leaves narrow, striated and bending very much. The sheath exceeds the joints, and is striated by a great number of exact close-set streaks, whose edges are gradually rolled back and indigo-blue. The ligula is very short, and the auricles small, pointed, and bending. Panicle erect, close, and spiked, the spikes alternate, sessile, and bending. Calyx two-valved, the valves unequal, the longer one single flowered. Corolla of two unequal valves, longer than the calyx, single flowered. Glumes cuneated. Seeds lanceolate. Glumes cuneated. Seeds lanceolate. Glumes cuneated. Seeds lanceolate.

Ph. arundinacea. Linn. Sp. Pl. 83. Wild. Ber. 223. Fl. Dan. 598.

Phleum arundinaceum. Linn. Sp. Pl. 88. With. Bot. 96. Eng. Bot. 62.

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Phalaris

[222]

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See Canary-grass.

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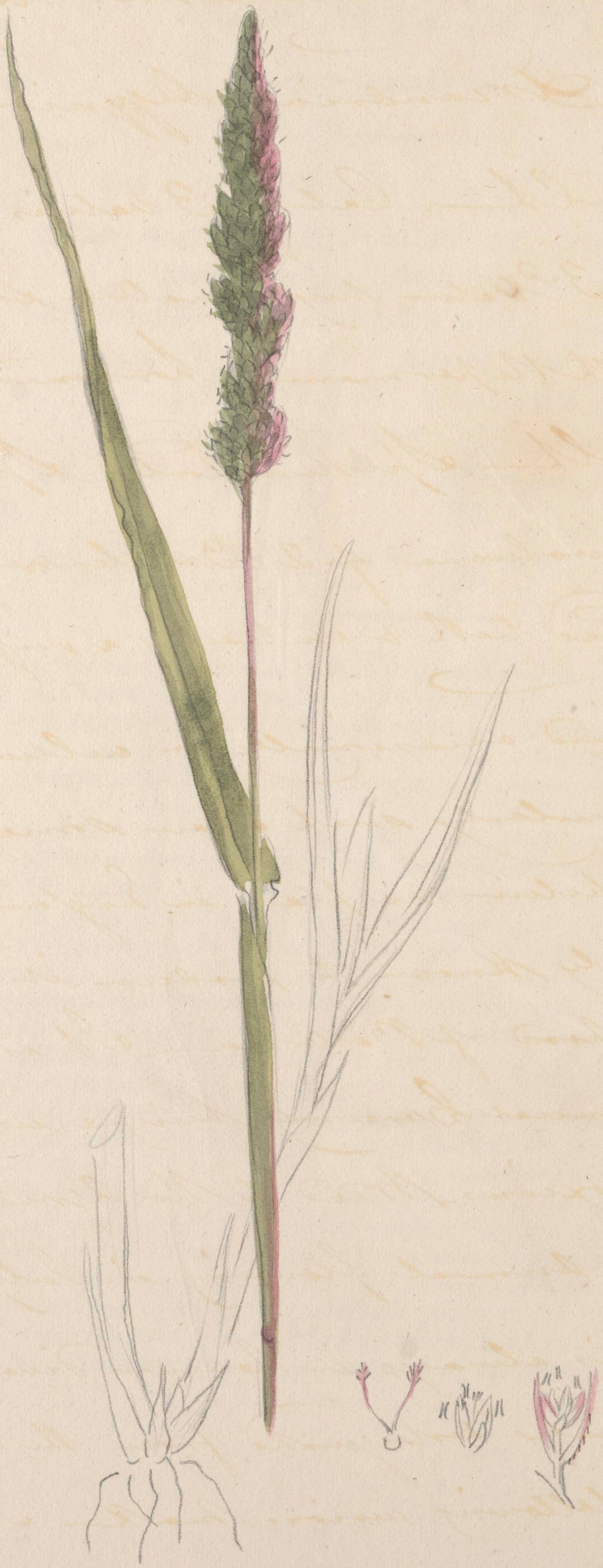


Panicum verticillatum. Rough P. grass

Triandria Digynia

Gen. ch. Cal. of 3 valves single flow.
The 3d Valve very small. Seed inverted
with the permanent bordered Corolla

Spec. ch. Spike naked. Spikelets in 4,
Involucra of 2 Bristles rough with re-
versed teeth. Embracing a single flower.

Found occasionally in cultivated fields
particularly such as are somewhat moist.
We believe no plant in England is so cer-
tainly known to produce it as the neigh-
bourhood of Battersea. It is merely a
Botanical Curiosity being a useless if not
a noxious Weed to the Agriculturist.
It is annual flowering in July & Augt.
It is always in Botanic dwarf a State
evidently distinguished from the Weed by
the following curious mark. Involucra of
2 Bristles to each flower not reaching
far beyond the flowers. & these bristles are very
rough with little sharp teeth pointing backwards

Panicum viride — Green Panick Grass

Triandria Digynia

Gen. Ch. Cal. 2 Valves very short flower
The 3rd Valve very small. Seed enwrapped
with the permanent hardened Corolla —
Spec. Ch. Spike cylindrical. Spikelets
crowded — Involucra of several Bristles
rough with recurved teeth. Embracing 2
flowers —

This is also a Native of cultivated
Ground but generally in more dry Places
by Mr. P. considered not as Native —
it as Ballena & I have found it about Norwich — It is annual flowering at the
same time as the preceding. This is of no
little Value to the Farmer —

Panicum Crus Galli — Cock Panic Grass

Triandria Digynia

Gen. Ch — Cal of 3 Valves Single flow
the 3d Valve very small — Seed inwrapped
with the permanent hardened Corolla
Spelt — Spike duly compound its
Stalk mostly 5 angled — Spikelets al-
ternate or in pairs subdivided Cal
bearded rough —

Gathered at Batteries with the
2 last described — They are all reckon
among the most rare Bost. Grasses
Root annual fibrous — Stems strong
erect or spreading 2 feet high or more
hairy streaked smooth — Leaves long
& broad rough with Swelling Sheaths
without Stipules — Spikes erect Re
compound being formed of spreading bran
ches generally having two Spikes standing
either alternately or in Pairs Each com
posed of several thick set Colored Spikelets

the common Spike-stalk is rough & more
or less constantly 5 angled — which however
varies according to its Luxuriance — Flowers
nearly Sessile without Involucra —
Cal. nicked bristly with 2 larger Glumes
either with or without Awns — which are
rough with small teeth & very various in
length — Cor extremely polished & even tip
ped with a little point now & then down
at the Summit — A Rim elliptical Mem
brane is clapped close to the inner Valve
of the Cor — or the outside which Dr Stokes
considers as a 4th Valve of the Cal. No Gen
justly & Mentions having seen it in the
Viridis & some other Species — We have
not however been equally successful
in this respect

Paniceum 2

Panicum Sanguinale - Locks for Panick Grass

Triandria Digynia

Gen.ch Cal. of 3 Valves single flowered

the 3.d Valve very small Seed inverted

with the permanent Involucrum Cor.a

Spec.ch Spikes fingers like knotty at

the base on the inside. - Flowers in hairy

heads. Sheaths of the Leaves dotted

To be found most constantly in Batter

ed fields — in other parts of the Kingdom it

occurs but sparingly or occasionally as must

always be the case with Such Annuals (Grapes

especially) as grow only on a rich manured Soil

Root fibrous ann.l flowers from July to the

End of Autumn. Stems numerous bent &

decumbent at their base spreading widely

upwards in length from 12 to 18 in. Smooth

Leaves broad nearly smooth generally shorter

than their Sheaths which are striated & spar-

ingly but not invariably hairy each

hair springing from a small cartilaginous

puncture but all the punctures do not always
produce hairs — Spikes umbellate or a little
distant spreading linear thin stalks bearing
winged stem ovalled or knotted at the base
Flowers in alternate pairs leaning on leaf
of a dull violet hue — Cal of 3 very unequal ribbed Valves of which the smallest is
stem abortive — Cor. of 2 concave Valves which
become quite horny as the Seed ripens —
Anthers & Stigmes Dark purple — it is a hard
coarse grass of no agricultural use —

Panicum dactylon — creeping Panick Grass

Triandria Digynia

Gen Ch Cal of 3 Valves single flowered
the 3rd value very small Seed inverted
with the permanent hardened Corolla

Spec Ch Spikes finger like hairy at
the base on the inside flowers solitary
Cal of 2 nearly equal Valves. contrary to
the Cor. Stoots creeping

Found about Pergamus in no other part
of Gt Britain — common in the Streets of
some of the large Towns in Italy

This Grass flowers in July or Aug. or later
the stony perennial roots are formed of
hard polished runners situated horizon-
tally in the sand & throwing out from each
joint a cluster of smooth fibres not downy
as in most grasses that inhabit loose sand
The runners are for the most part clothed
with the permanent bases of the leaves

which an alternate ryd obtuse pointed &
hairy. Stipula a tuft of hairs — Stems
a span high hairy. terminated by a cluster
3 or 4 linear purplish umbellate Spikes —
whose staiks are zigzag angular but not
winged — flowers solitary having one way
Cal of 2 Valves only — but the Struct affin-
ity between this Species & P. saxifraga for-
bids us to forbid us to follow Sapieu & others
in making it a Seperate Genus — Cor —
ecdamly of 2 Valves not of 1 only as de-
scribed by Sapieu — Those Valves being
contrary nor opposite to the Cal — might go
further to establish a generic Character than
any hitherto noticed

Phleum pratense Com.r Cats tail Grass

Triandria Digynia

Gen.l Ch.r Cal 2 valved abrupt pointed
Spike longer than the Cor. ovate flow.r
Spec.l Ch.r Spike cylindrical very long
Glumes fringed at the back longer than
the awns ——

Common every where in Meadows pas-
tures & waste ground flowering from
June to Oct.r Root perenn.l jointed &
more or less creeping Stems erect 3 or 4
feet in height hairy except in the upper
part striated. Leaves flat tapering to a
point roughish to the touch with long
striated cylindrical sheaths crowned by a
Rose blunt Stipula. Spike solitary
upright cylindrical obtuse composed of
innumerable closely crowded flowers
& varying from 2 to 4 or 5 in in length.
The Cal Valves are green or purplish with
pale nerves & a dilated white membranous
margin their keel fringed their awns
short & a little spreading the Corolla

is rubbed on the green — the anthera hang
loosely out of the flowers & are most com-
monly purple — In situations occasionally
dried up every part of the herb is smaller
& the joints of the root become curled
& very succulent in this state it is the
Phleum nodosum of Linnaeus & Sheu au-
thor

Professor Martyn has sufficiently shown
the instability of this Grass to agriculture
by this Act it appears to have been celebra-
ted formerly on very slight grounds —

Yet this very Grass is the Timothy G.
of the inutility of which ask Jonathan.

Phleum alpinum - Alpine Cat tail Grass

Triandria Digynia

Gen. Ch. Cal. 2 valved abrupt pointed
scarcely longer than the Cor. single flowered
Spec. Ch. Spike ovato cylindrical
Arista about as long as the Glumes

First discovered by Mr Dickson on Mountains near Garway Moor Scotland
It is a truly alpine Grass making the principal part of the Turf in the most elevated pastures of Switzerland & probably is to be found in similar Situations in more parts than one of our Island
Root creeping & a little tuberous - Stem mostly solitary simple ascending about a foot or more in height hairy below naked smooth striated & very strait above - Leaves broadish sharp pointed rough in the margin Stipula very short but triangular & less abrupt than in the common P. pratense. The Sheaths of the upper leaves are inflated & longer than the leaves themselves - Spikes

scarcely an inch long ovate or nearly cylindrical obtuse tinged with dull purple of which hue the straw & sheaths of the leaves mostly partake — The Glumes of the Cal. are ciliated with long hairs & are a little divaricated their keel is green — The Arista which terminate them being almost if not quite as long as the Glumes distinguish this Species from the foregoing — The Cor. consists of 2 unequal Valves of which the longest is ribbed & bearded

Phleum 3

Phleum paniculatum - Panicled Cats tail Grass

Triandria Digynia

Gen Ch - Cal 2 valved abrupt pointed scarcely longer than the cor. single flowered

Spec Ch - Panicle cylindrical resembling a Spike - Glumes naked turned in their upper part - Stem branched.

The Merit of making this Grass known to British botanists entirely belongs to Mr Hudson - It is an annual Grass occurring but very rarely on dry elevated Ground flowering in July - Root of several strong short fibres - Stems several branched leafy very smooth - Leaves numerous upright pointed of a grass green not at all glaucous hue - investing the stem with their long striated somewhat swelling sheaths Stipulæ somewhat long ~~bo~~ pointed generally torn. Panicles solitary erect & straight 2 or 3 in long exactly resembling the dense cylindrical Spike of the other Species but when bent to 1 side

They are found to consist of many branche-
lets forming a terse panicle, which feels
rough like a file from the short rigid
awns of the Cal.ˣ Cal. variegated with gr
& W. wedge shaped rough under a magn
fier of 2 equal wedge shaped glumes. swel
ling upwards each tipped with a short
awn & bordered on the inside with the
genuine abrupt margin of a Phleum
Anthers short whitish.

Sulpr. 1800. Published by J. Sowerby, London.

ALOPECURUS pratenſis.

Meadow Fox-tail-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing a ſingle floret. *Cor.* of 1 valve.

SPEC. CHAR. Stem erect, ſmooth. Spike ſomewhat lobed. Glumes of the calyx hairy, united at their baſe.

SYN. Alopecurus pratenſis. *Linn. Sp. Pl.* 88. *Sm. Fl. Brit.* 72. *Hudſ.* 27. *With.* 119. *Hull.* 16. *Relh.* 24. *Sibth.* 34. *Abbot.* 12. *Curt. Lond. faſc.* 5. *t.* 5. *Mart. Fl. Ruſt. t.* 6.

Gramen Alopecuro ſimile glabrum, cum pilis longiuſculis in ſpicâ. *Raii Syn.* 396.

A VERY common and extremely valuable graſs in rather moiſt and fertile (but neither very wet nor very dry) paſtures and meadows, flowering in May; for whoſe properties and advantages we muſt refer our readers to the *Flora Londinenſis*, contenting ourſelves with ſumming up the whole in the words of Prof. Martyn. "It undoubtedly poſſeſſes the three great re-"quiſites of quantity, quality and earlineſs, in a ſuperior degree "to any other."

To diſtinguiſh this graſs at firſt ſight by its oblong, cylindrical, thick, ſomewhat ſilky and grayiſh ſpikes is not very difficult. It may with botanical certainty be known by the lanceolate (not abrupt) calyx, containing only one flower, whoſe corolla conſiſts of *a ſingle glume* or huſk, the character of the genus. Its ſmooth ſtem, ſhort ſtipulæ, and the ſilky down which clothes the glumes, added to its much thicker ſomewhat compound ſpike and perennial root, diſtinguiſh it from A. *agreſtis*, the only ſpecies beſides that has the glumes of the calyx united at their baſe.

I have ſometimes ſeen a kind of *Muſca* ſticking in conſiderable numbers to the ſpikes of this graſs, quite dead, but recent, and apparently poiſoned, or killed by ſome ſudden cauſe, without any derangement of its form or poſition. This was firſt I believe noticed by my intelligent entomological friend Mr. Marſham.

Absteilung 4

Alopecurus agrestis. Slender Foxtail G.

Triandria Digynia

Gen. Ch. Cal. of 2 Valves containing a single flower. Cor. of 1 Valve

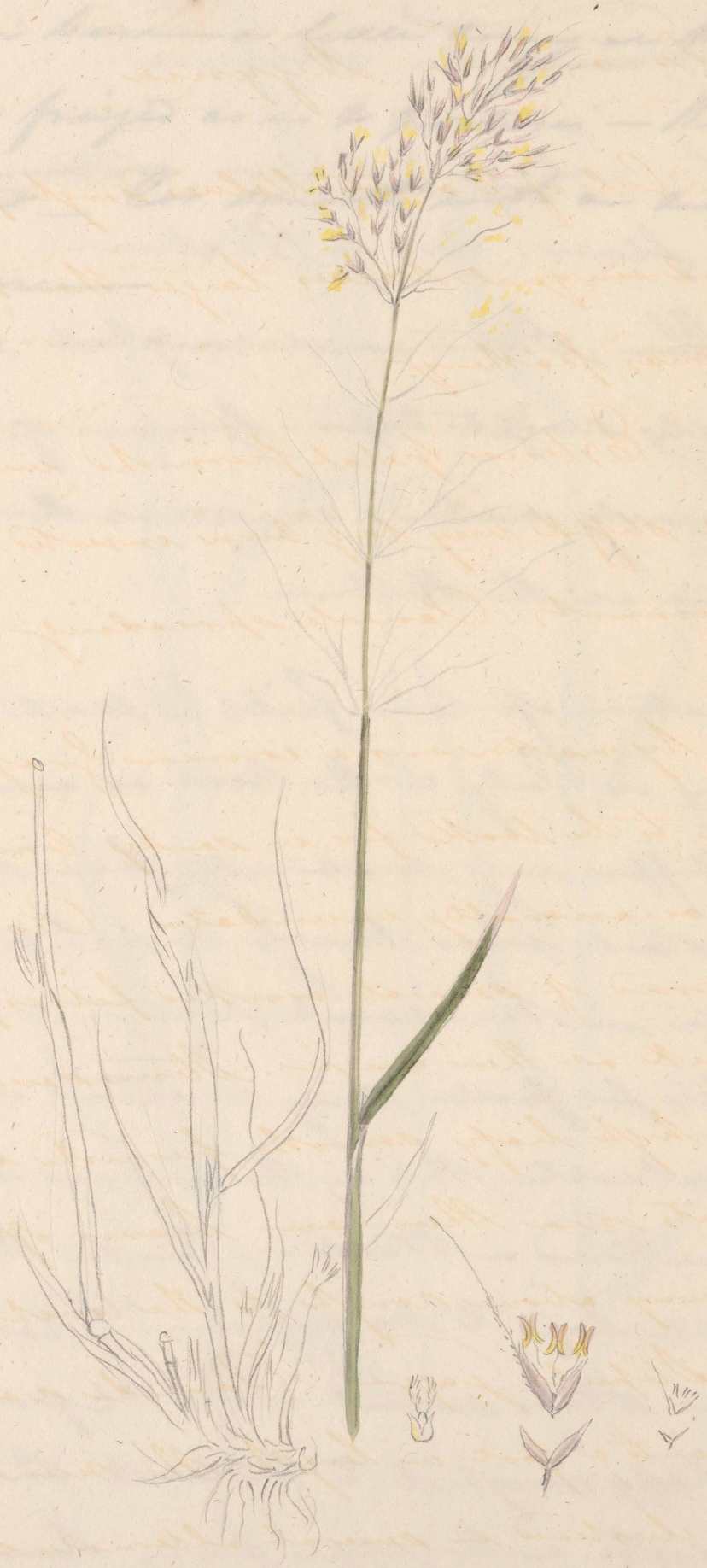
Spec. Ch. Stem erect roughish. Spike suspended simple taper. Glumes of the Cal nearly naked. united at their base dilated at the Back

A native of Corn fields & waste grounds flowering in July & the root is annual

This differs very materially from the Mea dow foxtail for as Mr. G it per. duration Situation in Meadows & pastures & excellent qualities for fooder may be esteemed one of the most valuable This on the contrary is rather to be reckoned a Weed exhausting the strength of arable land to no purpose Root small & fibrous Stems several about 1½ feet high erect hairy roughish to the touch the scarcely to the sight in the upper part. Leaves pale green rough on the upper side. with an oblong downy Stipula Spike nearly 3 in. long very

slender & tapering perfectly simple not branched
often of a purplish hue — Cal glumes (united
at their base — a little downy on the edges hue
not so fringed as in A pratensis — Pist Keel
dilated — Cor. smooth with an awn from
its base —

Agrostis 05



Agrostis Spica Venti — Silky Bent grass

Triandria Digynia

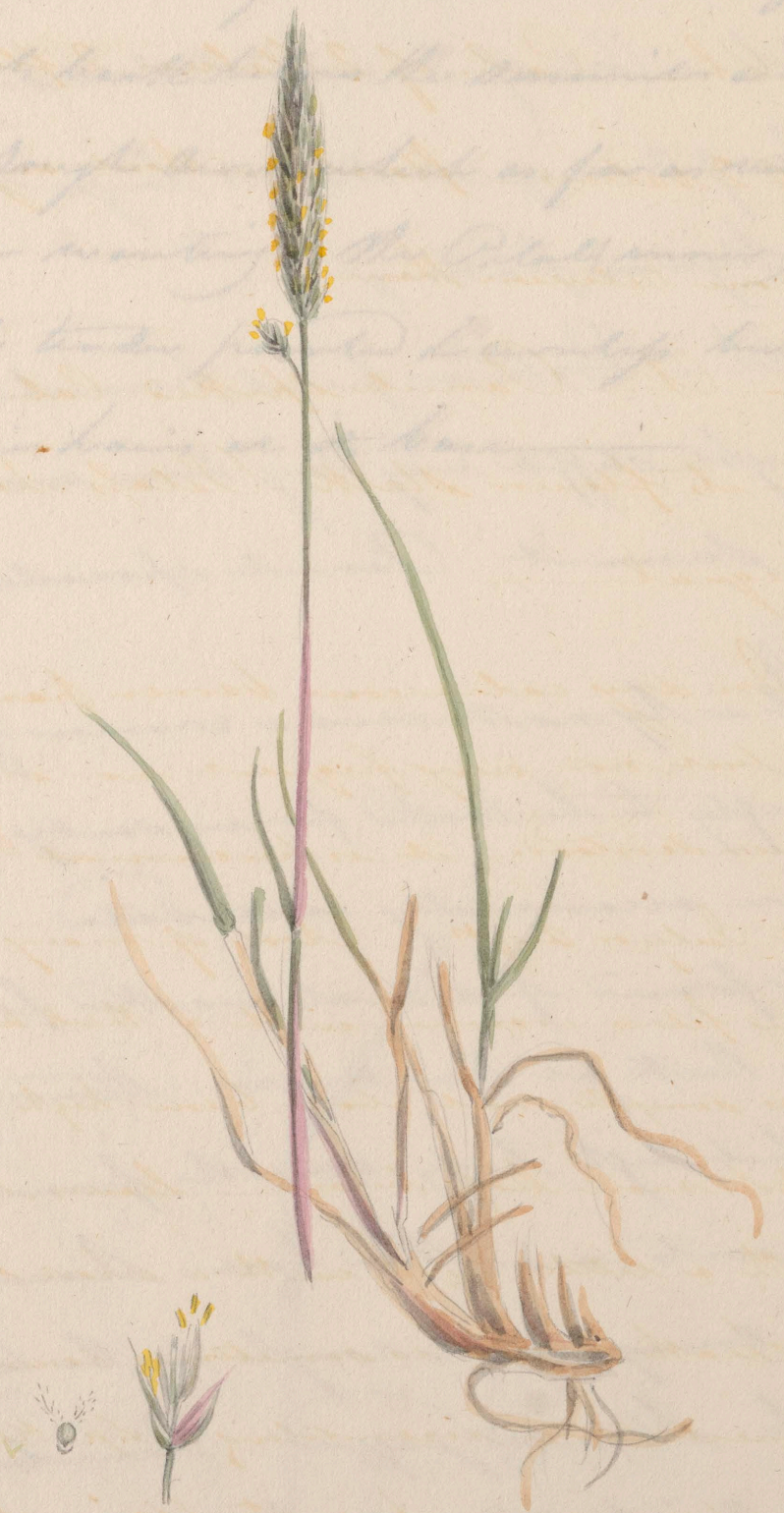
Gen Ch — Cal of 2 acute Valves single flow
Cor of 2 unequal Valves larger than the Cal.
Stigmas feathery

Spec Ch — Exterior petal furnished with a straight stiff & very long awn inserted below the Summits. Panicle spreading

It is by no means a common Grass but is chiefly to be looked for in sandy Corn fields that are occasionally inundated. Root annual formed of several crooked fibres peculiarly thick at their origin. Stems several 2 or 3 feet high hairy smooth furnished with 1 or 2 joints near their base. Leaves often a little downy above rough & the keel underneath. Stipula jagged. Panicle varying from 3 inches to a foot in length. The numerous branches clustered in several alternate series one above another. Their subdivisions angular & rough. Flowers extremely numerous small.

Glumes greenish white or purplish — Those of
the Cal. acute rough on the Keel unequal in
length the lo'est so there is some Grapes — Outer
Petal notched rough on the Keel & margin bea-
ring on its back below the summits a very long
stout rough awn which as far as we know
is never wanting. The Petal (inner) is
smooth tender pointed Lanceloy but has a
few fine hairs at its base ——

Aeria 6



Aira cristata_ Crested hair Grass

Triandria Digynia

Gen Ch— Cal. of 2 Valves 2 flowered
Cor of 2 valves— florets without any imper-
fect one between them —

Spec. Ch— Panicle spiked. Cal. longer
than its flower stalk— Petals sharp pointed
unequal——

In dry calcareous barren pastures or on
Walls but not very frequent nor is it a Grass
well understood.— it is perennial & flowers
about July or Augt— Root of many simple
downy fibres crowned with a thick tuft of leaves
Stems simple erect about 6 inc. high smooth
purplish most leafy below— Leaves linear
smooth a little rigid with a short Stipula & a
long sheath which is sometimes downy— Pani-
cle erect dense resembling a Spike— compound
of a silvery green hue its flowerstalks downy
the partial ones very short & erect flowers ovate
lanceolate. Cal. for the most part containing 2
florets rarely 3 nor have I ever seen more
It is formed of 2 unequal slightly downy husks

sharp-pointed keeled & ribbed with a membranous
edge — Cor petals like the Cal. inner much
shorter & narrower very little shorter — Sometimes the points of the lunks are lengthened out
into short awns ——

Aira caryophyllea Silver Hair Grass

Triandria Digynia

Gen. ch. Cal of 2 Valves 2 flowered
Cor of 2 Valves. — florets without any
imperfect one between them

Spec. ch. Leaves slender & tapering
branches of the panicle ternate spreading
florets depressed down from the back of the
Cor. twisted

This pretty Grass with its elegant silvery
Panicle is frequently to be seen ornamenting
barren & sandy hills & pastures flowering
June or early in July & after that is soon
burnt up & disappears its roots which are
annual being very little calculated to resist
Drought — From one root arise several
spreading slender stems about a span high
smooth & hairy. The radical leaves soon
wither those on the stem are narrow &
tapering with long sheaths & lanceolate non-
perf. Stipules Panicle very slender & hair-
like — divided & subdivided in a ternate man.

nor smooth & emarginated. Flowers small
ovate green or purplish with a shining citron
base scarcely to be expressed in a Drawing
Cal. glumes rough on the keel membranous
at the points. florets both sexes downy at
their base — Outer Valve of the Cor. bearing
twisted awn as it's back about twice it's own
length — This Grass may contribute
towards the early Summer food of sheep
for which reason probably Mr Stirling flem
fixed it in his Work — but it is justly ob
served in the flora londinensis that so insign
ificant an annual can hardly be worth cu
ltivating for the improvement of meadow
& pastures

750.
Jones, Bruton publish'd by J.C. Sowerby London

MELICA cærulea.

Purple Melic-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, with about 2 flowers, and the rudiment of another between them. *Cor.* of 2 valves.

SPEC. CHAR. Petals acute, beardleſs. Panicle denſe. Flowers erect, cylindrical.

SYN. Melica cærulea. *Linn. Mant.* 2. 325. *Sm. Fl. Brit.* 93. *With.* 139. *Hull.* 21. *Relh.* 32. *Sibth.* 39. *Abbot.* 16. *Curt. Lond. faſc.* 5. *t.* 11.

Aira cærulea. *Linn. Sp. Pl.* 95. *Hudſ.* 33.

Gramen pratenſe ſerotinum, paniculâ longâ purpuraſcente. *Raii Syn.* 404.

FREQUENT in the moſt barren ſandy boggy places, eſpecially about pools upon mountainous heaths, flowering in Auguſt, and varying in height from 6 to 18 inches, according to the nouriſhment it meets with.

Root perennial, of many ſtrong fibres. Whole herb harſh, rigid, rather glaucous. Stems with a ſort of bulb at their baſe, and one joint a little above it. Leaves upright, ſharp-pointed, ſtriated, entire, often hairy on the upper ſurface. Stipulæ of a few hairs at the top of the ſheath. Panicle oblong, erect, of a violet hue, branched, but not ſpreading. Flowers erect, ſmooth; their glumes deeply furrowed, beardleſs. Stamina very ſlender. Antheræ and ſtigmas deep purple. One floret is ſeſſile, the other raiſed on a ſtalk, which is generally extended above it, and bears one or two imperfect florets beſides; but this being not always the caſe, Linnæus and others have formerly referred this graſs to *Aira*. In ſhady places the panicle is pale or whitiſh.

Plate 7.

1058

Melica uniflora — Wood Melic Grass

Triandria Digynia

Gen Ch — Cal of 2 Valves with about 2 flowers & the rudiment of a third between them. Cor of 2 Valves

Spec Ch — Petals beardless. panicle drooping towards 1 side branched. flowers erect Cal. containing only 1 perfect flower

Not uncommon in groves & thickets where its red blossoms suspended by capil lary & almost invisible stalks seem like insects flowing in the air It flowers in May or early in June & is perennial Root fibrous or somewhat creeping — Stem a foot & half high slender hairy rough terminating in an elegant loose slender compound panicle leaning to 1 side but bearing its flowers erect. leaves flat green their rough on the Edge & back with down sheaths crowned by a short variable Stipula Cal of 2 rather unequal purplish brown elliptical barks smooth beardless & nibbed

containing only 1 perfect flower generally
accompanied by an imperfect 1 standing on a
little stalk & consisting of 2 or 3 membran
husks. Cor. of 2 elliptical concave ribbed
Valves notched at their tips. Anthers a
little prominent deep yellow or orange col
Stigmas very feathery.

Melica nutans — Mountain Melic Grass

Triandria Digynia

Gen ch — Cal of 2 Valves with about 2 flowers & the rudiment of another between them — Cor of 2 Valves —

Spec ch — Petals bearded Panicle close leaning to 1 side nearly simple Flowers pendulous Cal. containing 2 perfect florets.

This is a much rarer Plant than our last & is only found in mountainous Woods in the North of England Nor does it seem by Lightfoot and to be general in Scotland this being what he mentions as a Variety of the Comm^n Species They are however unquestionably distinct This flowers later the Stem is more angular the leaves ~~broader~~ narrower but it is sufficiently marked by the almost perfectly simple panicle or Spike & the pendulous flowers. each of which consists of 2 perfect & fertile florets besides the rudiments of 2 abortive ones —

Poa alpina Alpine Meadow Grass

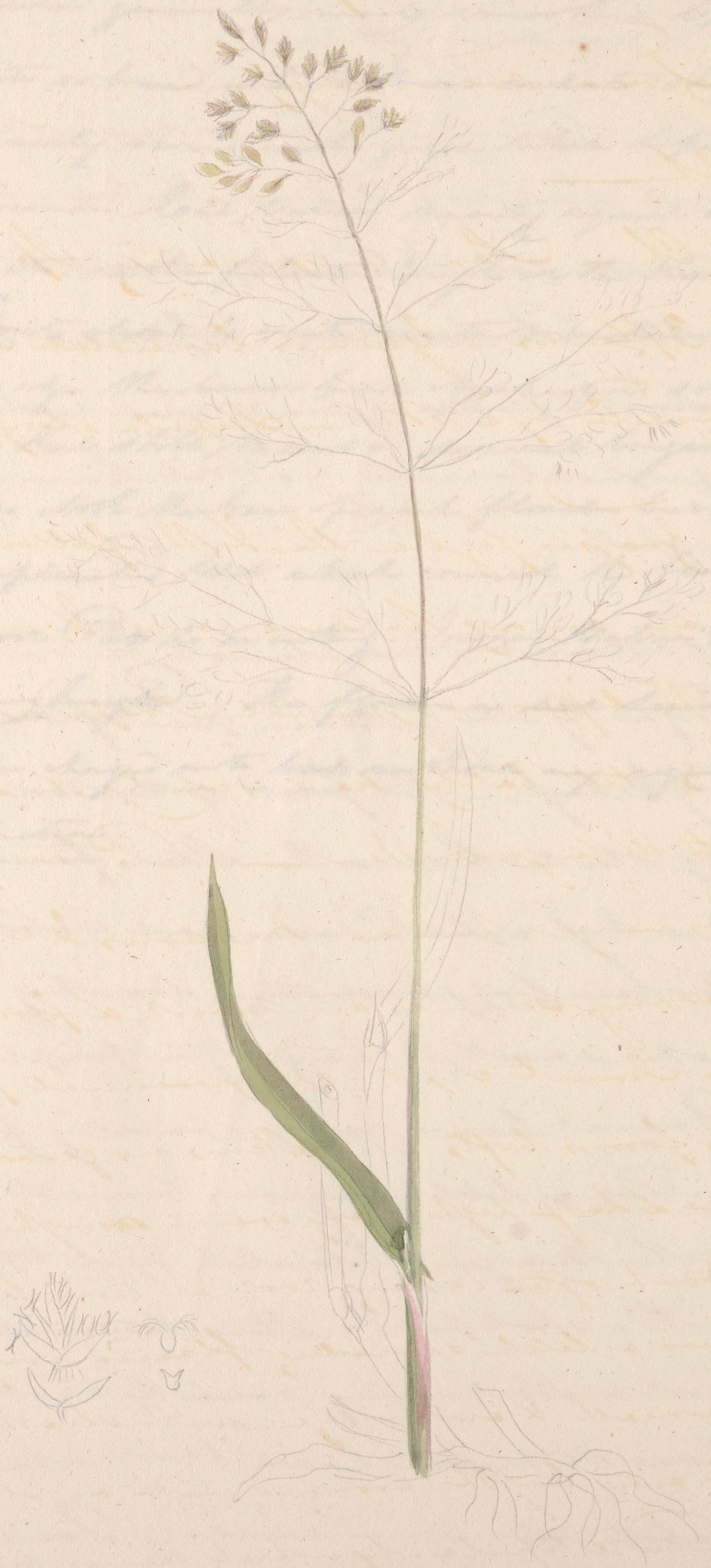
Triandria Digynia

Gen. Ch. Cal of 2 Valves containing many florets Spikelet rounded at the base. Corolla of 2 ovate pointed membranaceous Valves.

Spec. Ch. Panicle loose. Spikelets heart shaped of about 4 flowers. Glumes ovate rather sickle shaped not connected by a Mel. Corner Stipules very short

Gathered on Mountains to the North of Jaspa by Mr. J. Lowe. Perennial flowers in July & Augt. The fibres of the root are long slender & smooth. Stems from 4 to 12 in high a little decumbent & rooting at their base leafy & sometimes branching below naked smooth & shining often purplish above. Radical leaves many spreading flat ribbed a little glaucous beneath rough at the margin blunt ish yet tipped with a short point. Stem leaves about 2 short with very long smooth sheaths. Corner Stipules short & blunt upper ones ovate often torn or divided. Panicle

spreading short somewhat ovate — its branches
angular generally nearly smooth — Spikelets
ovate so broad as to be almost cordate shining
elegantly varied with green white & purplish
brown — Coal Valves nearly equal ovate
acute. rather falcate rough on the Keel —
Florets about 4 ovate acute membranous on
the edge the lower part of which is silky &
the Keel still more so. several long silky hairs
also clothe the base of each floret. but the long
complicated Web which connects the florets of
most Poa is wanting. Inner Valve notched
finely fringed. The flowers in wet seasons are
often changed into buds without any regular fructification.



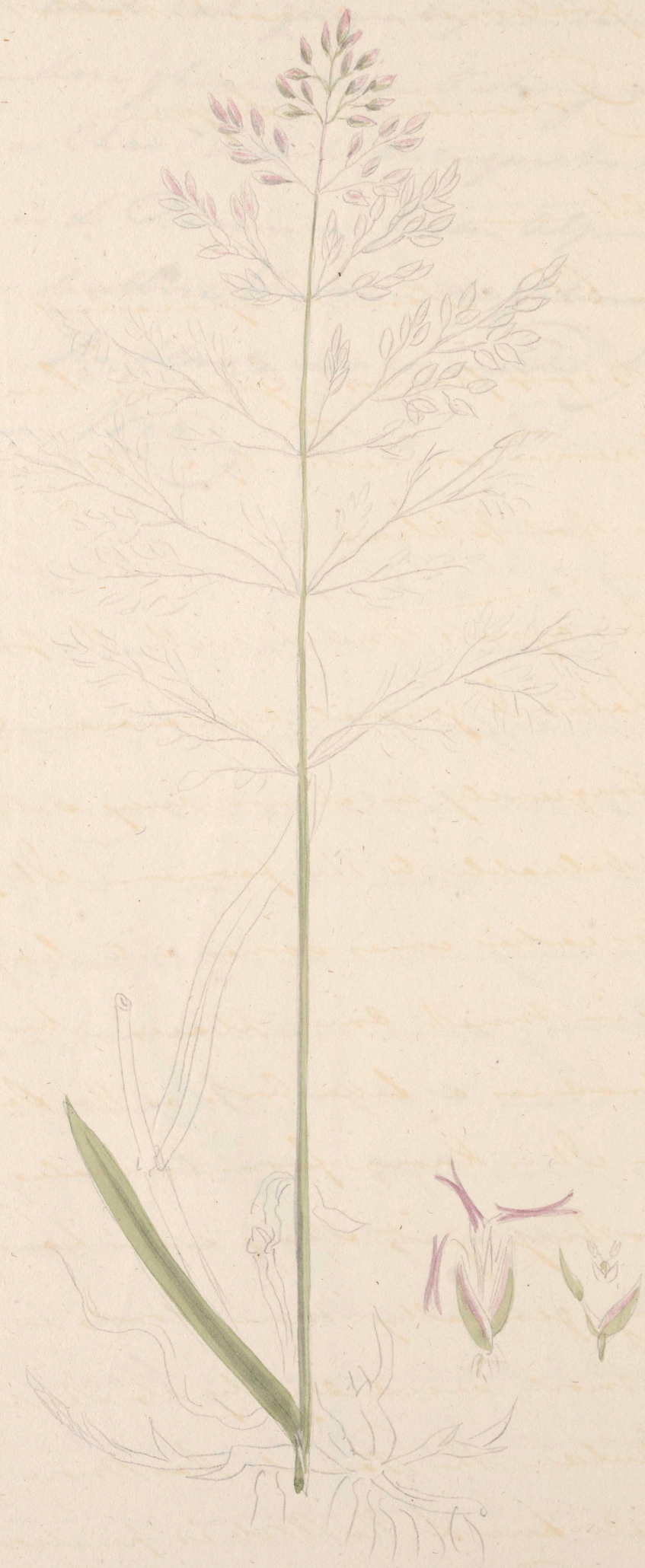
Poa trivialis Roughish Meadow Grass

Triandria Digynia

Gen. Ch. Panicle spreading Spikelets
of 3 flowers Glumes lanceolate 5 nerved
connected by a Web Stipula elongated

The 2 Grasses figd in this & the following
plate are among the more common & useful
& tho the differ in essential Properties &c
cannot title badly have scarcely known
how to distinguish them — P. trivialis
grows very often in Meadows & Pastures
preferring such as are moist & flowers
from June to Sept. Its perennial fibrous
Roots forms tufts The Stems are generally
a foot & half high hapy erect roughish to
the touch often taking root at their base
Leaves a little spreading flaccid roughish
underneath & on the Edges with sheaths about
their own length crowned with an oblong
pointed Stipula. by which this is distinguished
from the following in every state of growth

The Panicle is large & spreading when in
flower. Each Cal. generally contains 3
florets whose glumes have 5 strong ribs or
nerves, a Char.? which distinguishes this
genus is P. panna from Alpina &
corolla bulbosa & some neighbouring
Species. The florets are connected by a co
pious Web



Poa pratensis – Smooth stalked Meadow Gr.

Triandria Digynia

Gult

Spec Ch – Panicle spreading Spikelets of 4 flowers. Glumes lanceolate 3 nerved connected by a Web – Stipula short & blunt

This agrees much with the preceding in habit & general appearance grows no up frequently in almost every situation & is as valuable to the farmer – It flowers rather earlier comes sooner into leaf & will grow in much drier places – but the latter produces a better crop as the season advances – It is known from trivialis by the smoothness of its stems when handled. by having generally more flowers in a Cal but more decidedly by its short blunt Stipulæ – the Panicle has more often a purple hue & the Web is peculiarly long & compliated.

Poa procumbens - Procumbent Sea Meadow Grass

Triandria Digynia

Gen. Ch. Cal of 2 Valves containing many florets. Spikelet enclining to ovate - Glumes ovate pointed beardless -

Spec Ch. Panicle lanceolate pointing one way condensed rough - its common Stalk round - Spikelets about 5 flowered florets blunttish ribbed

Found upon Waste Ground within the Spray of the Sea flowers in July & Augst

Root annual fibrous - Whole plant glaucous. Stems several more or less prostrate about a Span long hairy smooth beneath the joints - Leaves flat acute nerved rough-ish with very long sheaths - Stipula sharp-ish torn - Panicle rigid having to 1 side semi cylindrical its main & partial Stalks nearly round rough Spikelets 2 ranked Sessile lanceolate 4 or 5 flowered smooth - Cal. Valves very unequal blunt Keeled the outermost having 5 ribbs Florets blunt 5 nerved membranous & torn at their Apex their inner Valves ciliated —

Nov.1.1796 Published as the Act directs by J. Sowerby London.

POA compreſſa.

Creeping Meadow-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* ovate; glumes ovate, pointed.

SPEC. CHAR. Panicle condenſed; its branches leaning one way, erect before and after flowering. Stem aſcending, compreſſed.

SYN. Poa compreſſa. *Linn. Sp. Pl.* 101. *Hudſ. Fl. An.* 41. *With. Bot. Arr.* 89. *Relh. Cant.* 36. *Sibth. Ox.* 42. *Dickſ. H. Sicc. f.* 6. 1.

Gramen pratenſe paniculatum medium. *Raii Syn.* 409.

FREQUENT on the tops of walls that are a little covered with earth, and in other very dry places, where it may be found in flower from June to September, and may be eaſily diſtinguiſhed by its compreſſed ſtem.

The roots are perennial, creeping, conſiſting of downy fibres, thrown out from the loweſt part of the ſtem, which is decumbent. The ſtraw riſes obliquely, the firſt joints being geniculated, the uppermoſt very long and erect. Leaves narrow, with a long ſheath, and ſhort obtuſe ſtipula, of a glaucous green. Panicle of the ſame hue, upright, the common ſtem contracting very ſuddenly where the firſt branches come off. All the branches are in the beginning cloſe and erect, acutely angular and rough, a little zigzag: as they flower they ſpread conſiderably, but immediately after the diſcharge of the *pollen* they become again cloſe-preſſed to the main branch, ſo that the upper part of the panicle looks as if it expanded firſt. By this mark the graſs may be known at a diſtance. The glumes have a ſilvery edge, and purpliſh tip; they vary from 3 to 8 or 9 in each calyx.

This graſs can ſcarcely be put to any agricultural uſe, though all cattle eat it; it does not thrive in moiſt or manured ground, and there are many better for dry ſituations.

Dr Anderson gives a very diffr Acct. he says it seems the most valuable Graſs of the Genus — if he means this by Poa pens?

Poa bulbosa — Bulbous Meadow grass

Triandria Digynia

Gen. ch. — Cal of 2 Valves containing many flowers. Spikelet rounded at the base — Cor of 2 ovate pointed membranous Valves —

Spec. ch. — Panicle slightly lying Spikelets of 4 flowers Glumes connected by a Web — Leaves finely serrated Stem bulbous at the base —

When the Flora Britan.ª was in the press this Grass was so little known I found myself obliged to adopt it on the authority of Hudson describing it from the American Specimen.. Fortunately before the publication of that Work Mr Stone favoured me with a Native Plant from Yarmouth Devs & I was enabled to mention it in the preface — This Grass is peculiarly fitted to inhabit dry sandy ground Its bulbs grow in clusters resembling little Onions & during most part of Summer remain inactive blown about at random — With the Autumnal Rains they vegetate &

for themselves by long downy Radicles — they
produce thick tufts of leaves (a grateful food
to Cattle) & in April or May they flower —
having in the meanwhile formed young bulbs
which as soon as the herbage withers are dug
like their predecessors — By these bulbs the
serrated leaves & the woolly stem connecting
the flowers, added to the broad ovate glaucous
& small panicle this species may be known
with sufficient certainty.

Poa distans — Reflexed Meadow Grass

Triandria Digynia

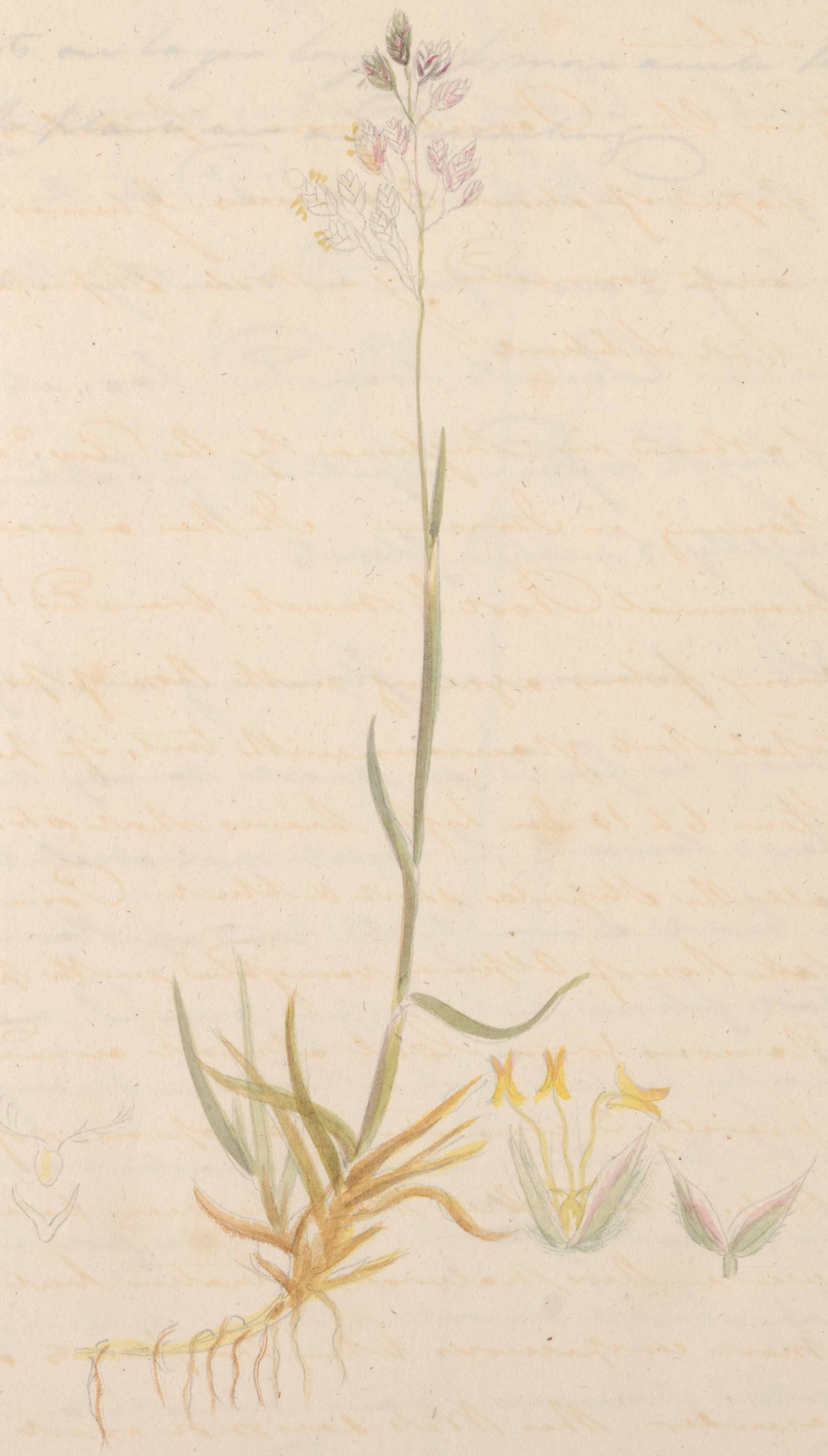
Gen. Ch. Cal. of 2 Valves containing many florets. Spikelet rounded at the base Cor. of 2 ovate pointed boat-like Valves

Spec. Ch. Panicle branched lax. its branches at length reflexed. Spikelets of 5 obtuse polished slightly 5 ribbed florets.

It is perennial flowering in July & Augt & may be found in most sandy waste places towards the Coast not absolutely on the beach & even by the road up Hamstead hill Root fibrous not creeping as in P. maritima the only English Grass which can be confounded with this Stems many decumbent at the base then spreading & erect about a foot high round leafy striated smooth — The whole herbage is rather glaucous. Leaves smooth acute strait with long sheaths crowned by a blunt notched Stipula Panicle erect remarkable for the striking manner in which its branches soon

become rigidly bent downwards — which
is in some degree the case occasionally
with P. maritima in that however the
florets are larger longer & more acute than
in the plant we are describing

Poa 8



1004

Poa subcerulea — Blueish Meadow Grass

Triandria Digynia

Gen. ch.

Spec. ch. Panicle loose Spikelets short
stalked of about 3 flowers. Glumes ovate
acute connected by a Web. Stipules all
short & blunt

Gathered in Anglesea by the Rev.d H. Davies
flowering in June. It has a creeping
perennial Root & much branched Culms
downy fibres agreeing with those of P. aratensis
below short glaucous with tint of purple
Stem 6 to 10 Inc. high leaves short straight
all the Stipula short & blunt. Panicle stalked
like those of Alpina variegated with purple &
glaucous green Cal almost awned. flowers
generally 3 connected by a copious soft web
web whose fibres may be seen between them
even in their natural situation but become
most conspicuous when the flowers are pulled
asunder. This Web does not exist in P.
alpina or Aria. The only 2 species likely other
wise to be confounded with this. It is found in
P. pratensis but in July.

792.

Oct.r 1. 1800 Published by J. Sowerby.

POA decumbens.

Decumbent Meadow-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the baſe. *Cor.* of 2 ovate, pointed, beardleſs valves.

SPEC. CHAR. Panicle generally ſimple, condenſed, erect. Spikelets ovate, four-flowered, the length of the calyx. Stipulæ formed of little hairs.

SYN. Poa decumbens. *With.* 147. *Sm. Fl. Brit.* 107. *Hull.* 23.

Feſtuca decumbens. *Linn. Sp. Pl.* 110. *Hudſ.* 47. *Relh.* 43. *Sibth.* 46. *Abbot.* 22. *Dickſ. H. Sicc. faſc.* 11. 3.

Gramen avenaceum parvum procumbens, paniculis non ariſtatis. *Raii Syn.* 408.

SPONGY bogs on barren ſandy or mountainous ground produce this graſs frequently. It flowers in July and is perennial.

The whole plant is remarkably harſh and rigid, lying cloſe to the ground, except when in flower. The roots creep, though to no great extent. The ſtem is about a foot long, jointed and bent, ſmooth, leafy. Leaves linear, ſtraight, horizontal, rather glaucous. Their long ſheaths cloſely inveſt the ſtem and are hairy (particularly upwards) and ſtriated. The ſtipula which crowns their ſummit withinſide is formed of numerous denſe hairs. The panicle is zigzag, and conſiſts of but few flowers. Each ſpikelet is ovate, acute, tumid (eſpecially as it ripens its ſeeds), ſmooth, generally purpliſh. The calyx glumes are about as long as the ſpikelet, nearly equal, ovate, acute, ſlightly ribbed, with a rough keel. The florets are more elliptical, blunter, and notched, very ſmooth, nerved, hairy at their baſe; their outer glume has in its notch a ſhort intermediate flat tooth, totally different however from the awn of a *Feſtuca*, ſo that we readily aſſent to Dr. Withering's alteration in making this graſs a *Poa*. In habit, and ſtructure of ſome parts, it is, as Linnæus obſerves, more allied to *Melica*.

Pub.d 1796 Publish'd by J. Sowerby, London.

BRIZA media.

Common Quaking-Graſs, or Cow-Quakes.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, with many flowers; the little ſpike two-ranked, its valves heart-ſhaped, obtuſe, the innermoſt ſmaller.

SPEC. CHAR. Little ſpikes ovate. Calyx ſhorter than the florets, which are about 7 in number.

SYN. Briza media. *Linn. Sp. Pl.* 103. *Hudſ. Fl. An.* 38. *With. Bot. Arr.* 92. *Relh. Cant.* 38. *Sibth. Ox.* 43. *Mart. Fl. Ruſt. t.* 39. *Dickſ. H. Sicc. faſc.* 5. 2.

Gramen tremulum. *Raii Syn.* 412.

VERY common in paſtures, where, as Profeſſor Martyn obſerves, it is made into hay with other graſſes, but never cultivated alone for any particular purpoſe. The roots are perennial, and the flowers appear in May.

Root fibrous. Straw upright, from 6 to 18 inches, moſt commonly about a foot, in height, round, very ſmooth, with one or two joints near the bottom. Leaves moſtly at the root, with one from each joint of the ſtem as uſual in graſſes, the ſheaths of which laſt are very long, the ſtipules very ſhort, blunt, and entire. Branches of the panicle purpliſh, ſpreading, the lowermoſt in pairs, the others alternate, all ſo extremely ſlender, and more or leſs zigzag, that the ſpikes, which hang drooping from their extremities, tremble at the leaſt breath of air or other cauſe of agitation; from which circumſtance, as well as their elegant form and ſhining brown colour, they excite the admiration of the moſt incurious. The calyx is generally of a darker colour than the floral valves, but like them in ſhape; the florets are about 7, in two ranks, ſo that the ſpike is much compreſſed, and of a broad ovate figure.

Brazia 9

July 1st 1796 Published by J. Sowerby London.

DACTYLIS glomerata.

Rough Cock's-foot Graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, compreſſed; one valve larger, and carinated.

SPEC. CHAR. Panicle crowded, leaning one way.

SYN. Dactylis glomerata. *Linn. Sp. Pl.* 105. *Hudſ. Fl. An.* 43. *With. Bot. Arr.* 94. *Relh. Cant.* 39. *Sibth. Ox.* 43.

Gramen aſperum. *Raii Syn.* 400.

ONE of the moſt common of all graſſes, in paſtures, hedges, thickets, &c. remarkable for thriving under the ſhade and drippings of trees, and thence ſometimes (as Dr. Withering mentions) called Orchard Graſs. It is a harſh coarſe graſs, not eaten by cows (according to the experiments of Linnæus), nor much preferred by other domeſtic animals.

Root ſtrong and perennial. Leaves dark green, carinated, harſh and rough. Stipula bifid, or torn. Stems two feet high, rough, leafy, terminating in a ſort of pyramidal branched panicle, conſiſting of ſeveral thick tufts of flowers all leaning one way, by which it may be readily diſtinguiſhed. The lower branches of the panicle are much divaricated, and ſometimes compound. Antheræ reddiſh, hanging out of the flower on long filaments. Each calyx contains three, four, or more florets, with both petals pointed, and one ſhortly awned. It flowers from June to Auguſt.

Dactylis 10

Feb.ʸ 1.1797 Published by Jᵗ Sowerby London

DACTYLIS ſtricta.

Smooth Cock's-foot Graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, compreſſed; one valve larger and carinated.

SPEC. CHAR. Spikes 2 or 3, erect, ſmooth; flowers leaning one way, downy.

SYN. Dactylis ſtricta. *Solander in Ait. Hort. Kew. v.* 1. 104.

D. cynoſuroides. *Hudſ. Fl. An.* 43. *With. Bot. Arr.* 93.

Spartum eſſexianum, ſpica gemina clauſa. *Raii Syn.* 393.

FOUND, though rarely, in muddy ſalt-marſhes and about the mouths of rivers on the eaſt ſide of this kingdom. Our ſpecimens were gathered by T. Woodward and D. E. Davy, Eſqrs. between Aldborough and the river's mouth, in Auguſt laſt.

Root perennial, very ſtrong. The whole herb is exceedingly hard and rigid, from 10 to 20 inches high, erect; the ſtraws clothed to the top with alternate, ſheathing, ſtriated, pointed leaves, of a dull green, with ſhort jagged ſtipulæ. Spikes terminal, generally 2, perfectly erect, cloſe preſſed together and nearly equal, ſet with 2 ranks of flowers on one ſide. The common ſtalk is angular, a little zigzag, ſmooth. Glumes of the calyx downy, containing a ſingle floret. Antheræ projecting, pale-purple or browniſh. Stigmas feathery, united at the baſe into a ſimple ſtyle.

Linnæus received ſpecimens of this graſs from Lœfling, gathered in Portugal. He confounded it with his D. *cynoſuroides*, which is a native of America, and widely different, growing to a much greater ſize, and bearing a large panicle of very numerous ſpikes, whoſe ſtalks, as well as the carina of the calyx, are rough with minute ſpinous teeth, and the flowers are more crowded than in D. *ſtricta*.

April 1. 1790 Published by J.t Sowerby.

CYNOSURUS criſtatus.

Creſted Dog's-tail Graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 huſks, containing few florets.
Partial Receptacle unilateral, leafy.

SPEC. CHAR. Bracteæ pinnatifid.

SYN. Cynoſurus criſtatus. *Linn. Sp. Pl.* 105. *Hudſ. Fl. An.* 59. *With. Bot. Arr.* 95. *Relh. Cant.* 39. *Sibth. Ox.* 52. *Leers Herb.* 49. *t.* 7. *f.* 4.
Gramen criſtatum. *Raii Syn.* 398.

THIS graſs is equally common with the preceding, making a principal part of the turf on high gravelly or chalky ſoils, in parks, lawns and ſheep-walks, and affords good nouriſhment to thoſe animals as well as to deer.

The root is tufted, perennial, with long ſimple fibres. Stems very erect, from a foot to 18 inches high, rigid, round, ſmooth, clothed about the lower part with ſhortiſh, alternate, paliſh leaves. Stipulæ ſhort. Spike green, erect, about 2 inches long, compoſed of numerous ſpikelets, all leaning one way, on a zigzag ſtalk. Each ſpikelet is accompanied by another abortive one, which Linnæus calls the bracteæ, reſembling a ſmall double-toothed comb. Theſe remain long upon the ſtalk, turning of a yellowiſh colour in decay. Ray mentions a variety with 4 rows of ſpikelets. This *Cynoſurus* flowers in June or July.

Cynosurus 11

Festuca ovina Sheeps Fescue Grass

Triandria Digynia

Gen ch— Cal of 2 Valves—Spikelet oblong somewhat cylindrical with sharp pointed Glumes—

Spec ch— Panicle pointing one way close— Florets roundish smooth at their base— Straw square— leaves bristle shaped rough—

A common Grass in dry exposed Pastures flowering in June & supposed by Linnaeus Hudson Flet & others to be a peculiarly excellent food for Sheep— Those who have recommended it for a crop of Hay have probably mistaken it for F duriuscula which thrives much more by culture & yields a far greater produce— The square Stem of F ovina distinguishes it at once without any other mark— The Micrographia Botanica may refer to the perfectly smooth edged inner Valve of the Corolla which in F. duriuscula is finely fringed

Festuca duriuscula. Hard Fescue Grass

Triandria Digynia

Gen. Ch. Cal. of 2 Valves. Spikelet oblong somewhat cylindrical with sharp pointed Glumes

Spec. Ch. Panicle pointing one way oblong branched. Florets about 6. nearly cylindrical awned. Stem leaves flat Root fibrous.

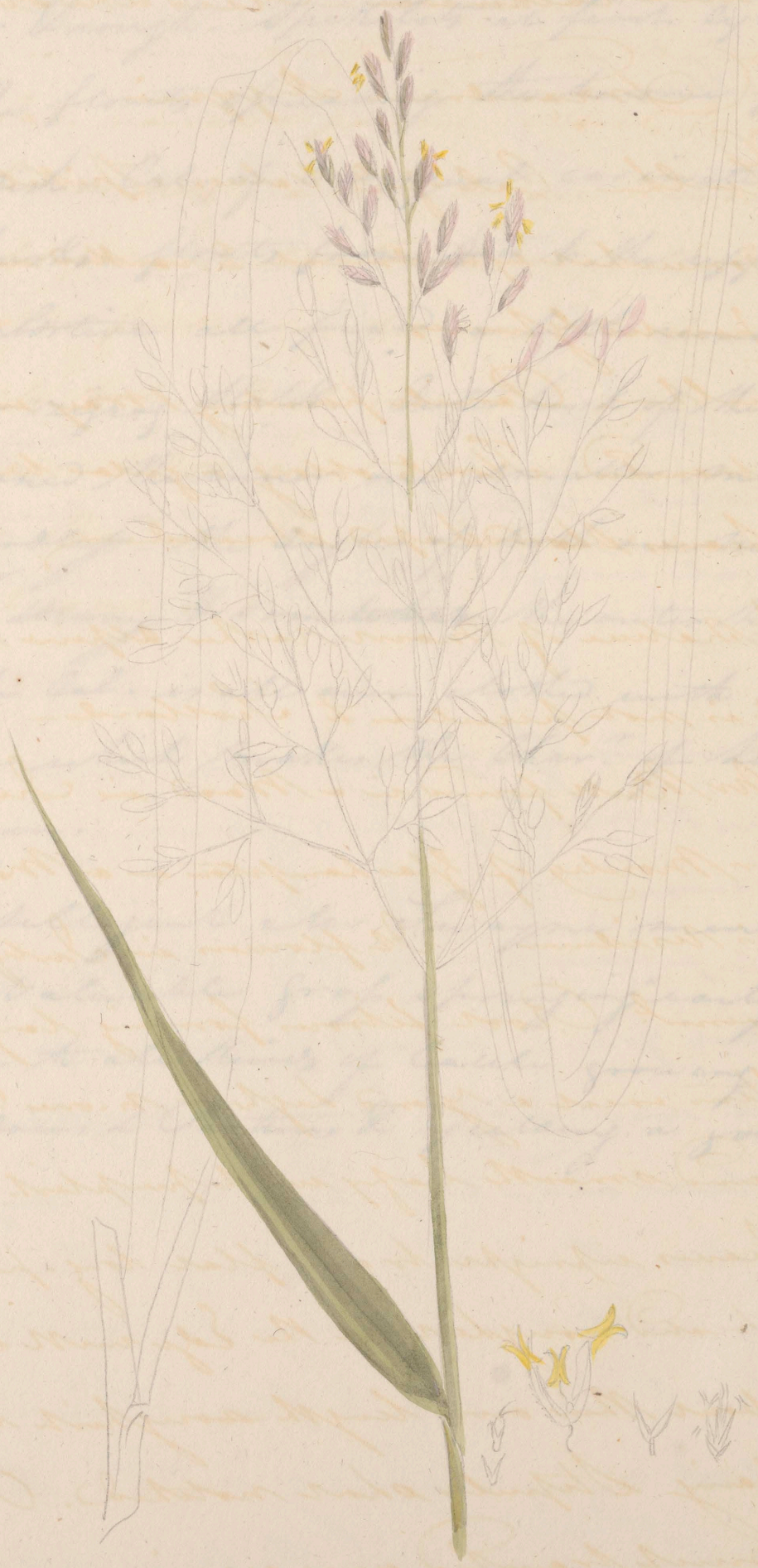
A common Grass every where about Meadows Pastures & Waste Grounds flowering about Midsummer

Root fibrous perennial. Herbage of a full darkish green. Straws a foot or more in height erect leafy. Leaves upright roughish the lower ones slender rigid acute compressed striated the base completely sheathing the Straw with scarcely any perceptible Stipula upper leaves broader & flat. Panicle erect a little Zigzag alternately branched. The branches all leaning one way the lower ones subdivi-

ded & more spreading. Flower Stalks all
ly angular & rough. Spikelets at first cylind
but by the florets spreading the become flatt
often reddish. Cal. of 2 unequal carinated &
pointed husks. florets from 4 to 6 the uppermo
generally abortive all fixed a little remotely
an angular zigzag Stalk. Outer husk of the Cor
strongly awned the inner one smaller more a
cate & beardless. The angles of both are minut
ciliated & downy & sometimes The outer husk
with as the Cal. is all over clothed with soft
pubescence which makes the Char. of Linna
F. Cumetorum.

The intelligent Mr Swayne mentions
this as a Valuable grass springing early be
acceptable to all kinds of Cattle growing in
good Meadows & Pastures & yielding a good bu

Fortescue 12



Festuca Calamaria — Reed like Fescue Grass

Triandria Digynia

Gen. Ch. of 2 Valves. Spikelet oblong somewhat cylindrical 2 ranked with sharp pointed Glumes

Spec. Ch. Panicle pointing 1 Way erect much branched. Florets oblong angular beardless Leaves Awl shaped Striated

A Native of moist rather alpine Woods It is not peculiar to Scotland — The Rev Mr Bulk found it a Wood in Ireland & Mr Mosley of Glaslampton in a Wood near his residence. It flowers in July & is perenn. Root fibrous forming large tufts Stem erect a Yard high or more Reed like round smooth hairy with purplish Joints Leaves upright broad flat long-pointed striated rougher at the Edges with Sheaths about their own length roughish but not hairy Stipula short notched. Panicle much branched very various in density according to its meeting with more or less

shelter. Spikelets small often tinged with purple or brown—roughish under a Microscope. Cal. narrow & pointed. Florets 3. 4 or 5 linear oblong a little distant their outer valve longest & keeled their inner with 2 ribbs often folded together so as to look like a simple keel. which gives them a peculiar appearance & has caused some in accuracy in the Descr.ns in Fl. Bor.: which it is our duty to point out

romus erectus — Upright Brome Grass

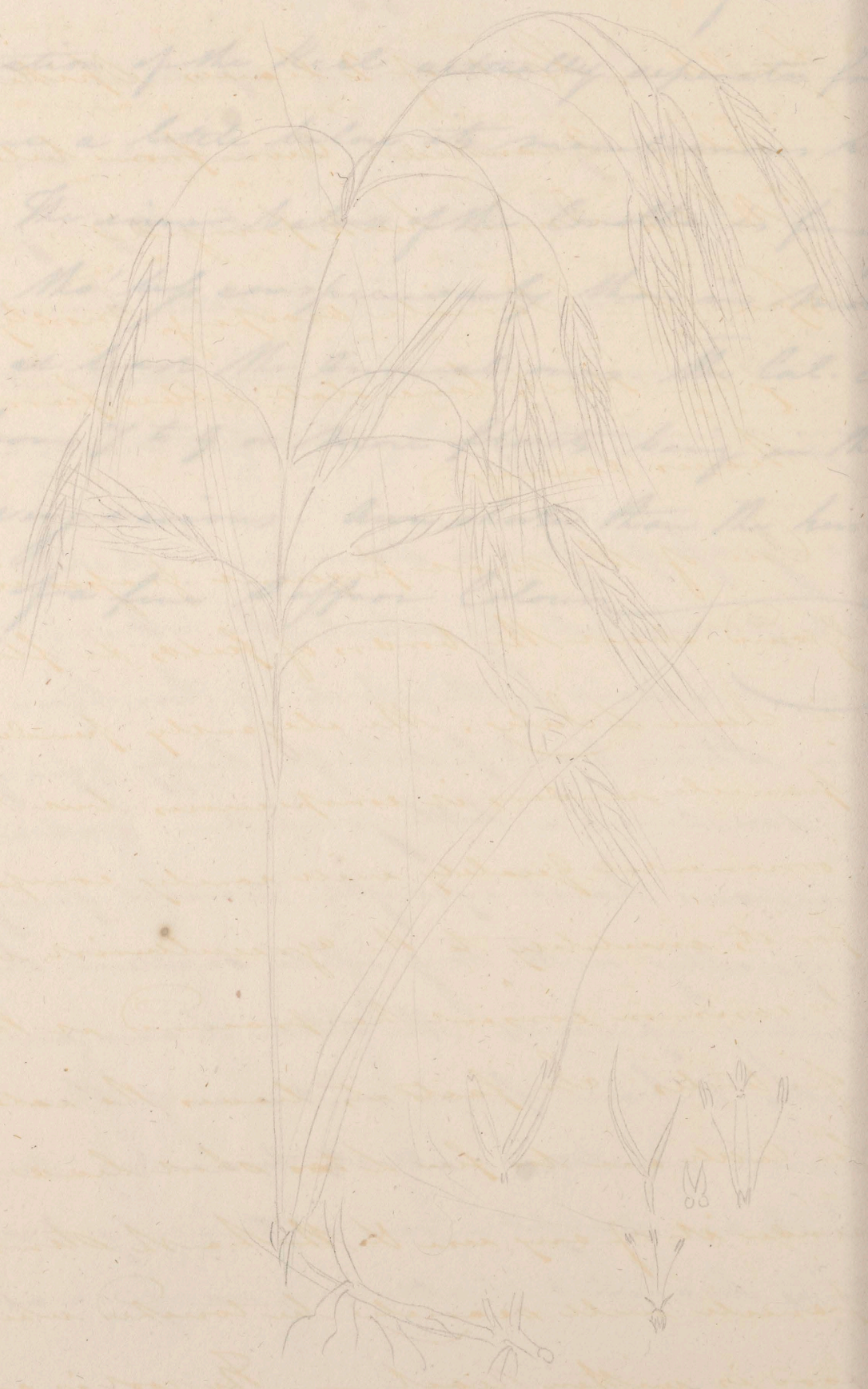
Triandria Digynia

Gen. Ch. Cal. of 2 Valves. Spikelet oblong somewhat Cylindrical 2 ranked. Awn from below the Top. Inner husk fringed

Spec. Ch. Panicle erect a little branched Florets numerous slender — Radical leaves very narrow fringed with White scattered hairs

This Grass prefers a Sand or a Chalky Soil Root perennial by which this Bromus differs from Avena is with which it has been confounded. Straw 2 or 3 feet high stiff upright downy sometimes a little jointed. radical leaves numerous short upright narrow fringed unequally with long white scattered hairs pointing upwards The Stem leaves are much broader & have fewer or none of these hairs Panicle erect spare all its branches most of which are simple one or two only being sometimes branched. all are rough various in

length. Glumes compressed carinated purplish, sh
sometimes very downy sometimes naked but a
a roughish keel & awn which last tho of course
continuation of the keel actually seperates fr
the glume a little below its membranous t
mits. The inner valve of the Corolla is fini
fringed tho' less conspicuously than in Bro
Bromi at least the annual ones. The Cal. c
tains from 7 to 9 or more florets being in th
repeat very various. Awn shorter than the hus
Anthers of a fine Saffron Colour



Bromus sterilis - Barren Brome Grass

Triandria Digynia

Gen Ch - Cal of 2 leaves. Spikelet oblong. 2 ranked. Awn from below the top. Inner husk fringed

Spec Ch - Panicle drooping mostly simple - Florets lanceolate ribbed furrowed leaves downy

One of the most frequent grasses in waste ground about the borders of fields &c flowering in June & July. The elegantly pendent panicle renders it conspicuous but this ornamental Quality will ronely compensate for its inutility to the agriculturist which by common consent has pronounced it the name of sterilis. In fact its leaves & culable for cattle are too few & too short lived to render it of any use & the harsh stems & panicle will scarcely be touched while other food is within reach. The root is annual & small Stem 2 feet high erect jointed leafy. leaves spreading flat shortish clothed

with stock down. Stipula torn. Panicle
large slender spreading rough its branches
very seldom subdivided. Spikelets pendulous
lanceolate compressed brownish green of 6
or 8 lanceolate keels rough long bearded
florets each marked with 7 or 9 ribs Sta
mina 3 by which it is distinguished with
certainty from B. diandrus. t 1006. In
both these Species the Styles grow laterally
out of the Germen

Bromus arvensis – Field Brome grass

Tribe Avenaceæ Juss.

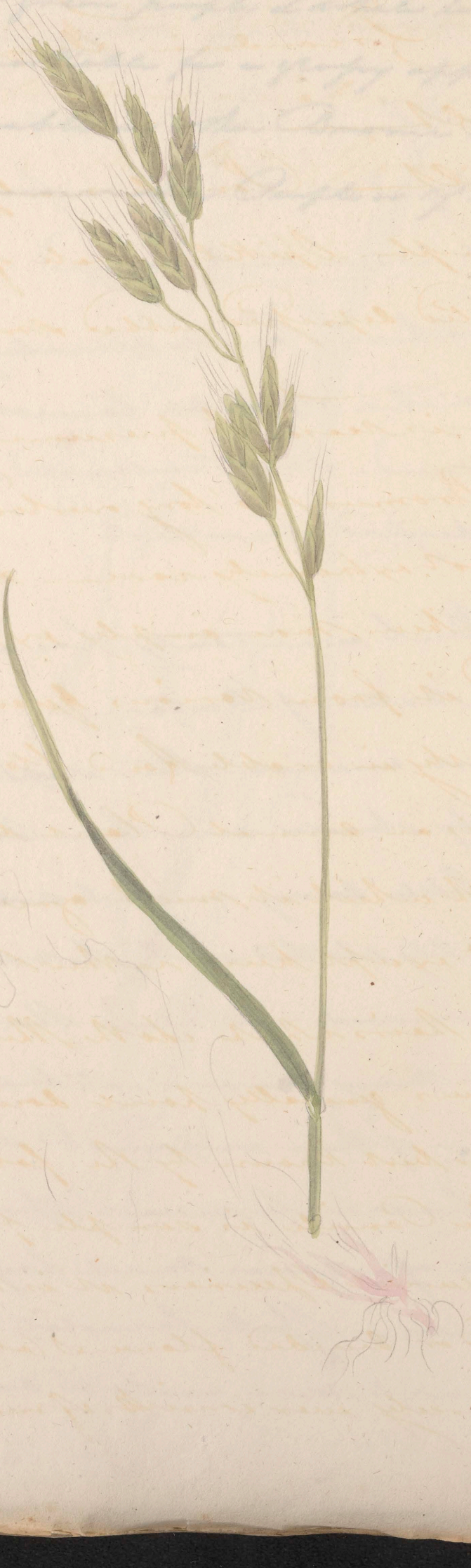
Genl Char Cal of 2 valves. Spikelet oblong 2 ranked. Awn from below the top. Lower husk fringed

Spec Char Panicle spreading its stalks branched. Spikelets lanceolate about 8 flowered. Florets imbricated elliptical depressed smoothish

Much uncertainty has attended this Genus as a Native of Britain –

Root annual. Stem simple 2 or 3 feet high leafy smooth – Leaves bright green a little downy on each side their sheath, thickly clothed with short hairs pointing downwards – Stipula short – Panicle – not many flowered, its branches whorled many of them compound & subdivided at least in luxuriant Specimens for the plant often grows much larger than that now before us – Spike lanceolate & erect at first afterwards more ovate & drooping. Some

of about 8 or more imbricated elliptical
depressed (not cylindrical or distant) flowers
variegated with green purple & white but below
downy & remarkable for a glossy appearance
scarcely observable in other Bromi — The
anthers are occasionally Purple or yellow



Bromus Racemosus Smooth Brome Grass

Triandria Digynia

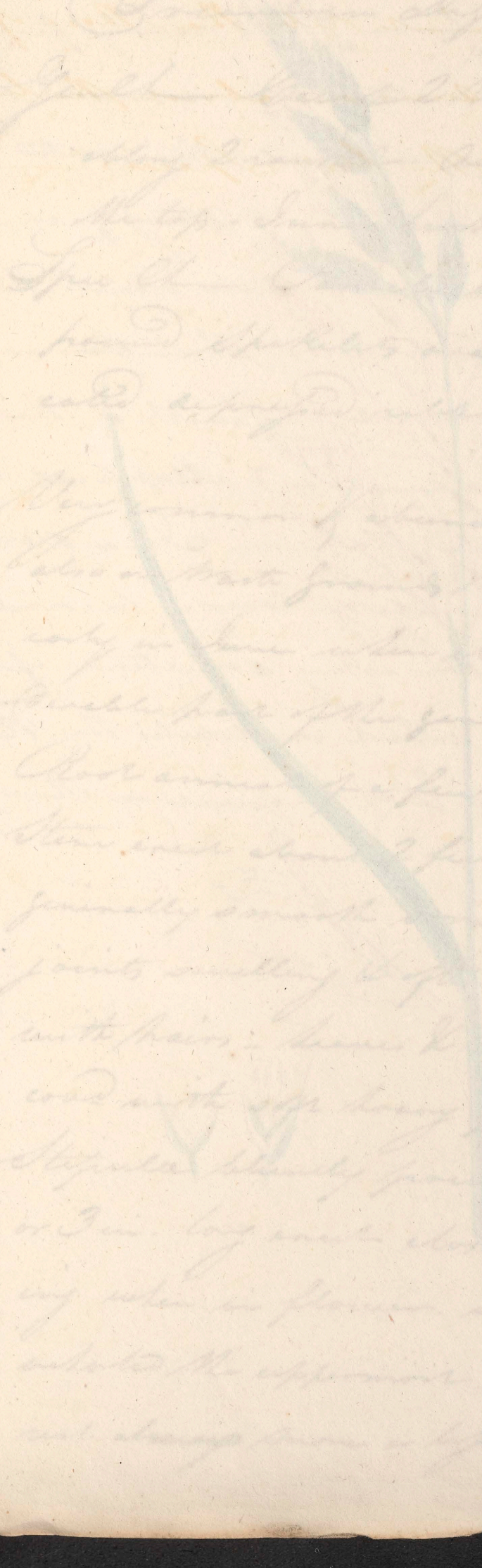
Gen. Ch.

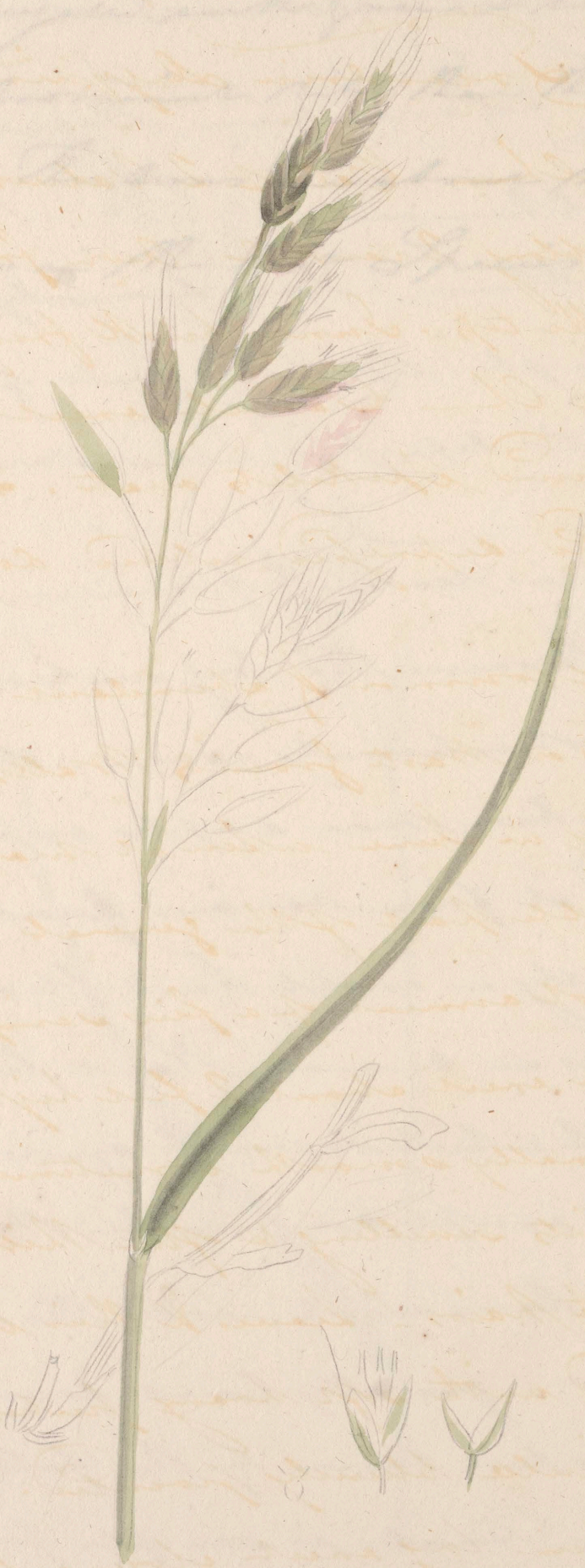
Spec. Ch. Panicle nearly erect spreading simple. Spikelets ovate of about 6 imbricated deciduous ribbed smooth flowers

There is reason to presume that this Species of Bromus tho' long overlooked by Botanists is not extremely rare. Since its Char. have been more amply explained we have rec'd it from various quarters. It comes readily in arable land flowering in June It is an annual Plant like the B. mollis with which it much agrees in general habit except being rather more slender The hairs which cloth the Sheaths of the leaves generally point downwards it is however best known by the following marks The Panicle is simple for even in the most luxuriant Specimens it is hard to find a branched or divided flowers stalk The Spikelets scarcely ever consists of more than 6 flowers

& are always perfectly smooth & shining
elegantly variegated with green & white
& having lip prominent ribs Near Rose of
B. mollis. The leaves are about the leng
of the Petals as in the last Species —

Bromus 13





Bromus mollis — Soft Brome Grass

Triandria Digynia

Gen Ch — Cal of 2 Valves Spikelet oblong 2 ranked Awn from below the top. Inner husk fringed

Spec Ch — Panicle erect close compound Spikelets ovate. Florets indurated depressed ribbed downy

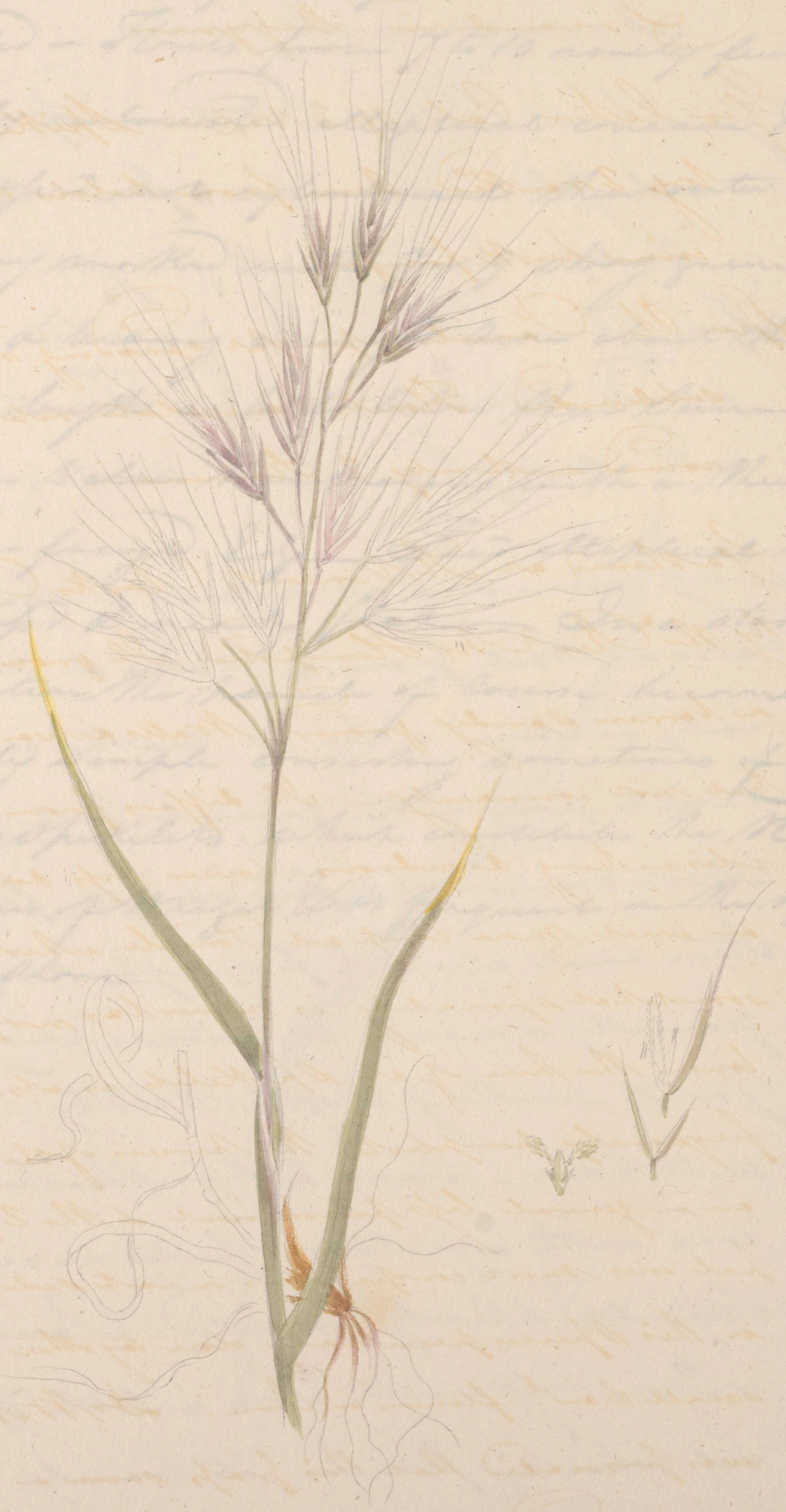
Very common & abundant in pastures also on Waste Grounds Walls &c flowering early in June when it makes a considerable part of the general Crops of Hay

Root annual of a few simple fibres

Stem erect about 2 feet high simple geninally smooth sometimes hairy the joints swelling & often Prickly clothed with hairs — Leaves & their Sheaths Prickly covered with soft hoary pubescense

Stipulæ blunt pointed. Panicle 2 or 3 in. long erect close a little spreading when in flower. its branches half whorled the uppermost simple some of the rest always more or less subdivided

various in length all angular & downy
Spikelets nearly upright ovate acute nearly
tumid — Florets from 7 to 10 nearly femen
closely imbricated elliptical concave &
depressed not cylindrical. Their outer v.
downy marked with 7 or 9 strong green
ribs & bearing a rough awn about their
own length a little below their Summit
inner Valves membranous with a thick
green fringed Edge — Seed elliptical ba
depressed & nearly flat — In a starv
Condition the panicle of course becomes
nearly simple consisting sometimes of on
3 or 4 Spikelets. which constitutes the B
Plains of Wigtonshire & is frequent on the sa
Sea Shore



Bromus diandrus — Upright and Bromy

Dreandria Digynia

Gen. Ch. Cal. of 2 Valves Spikelets oblong 2 ranked down from below the top
Corol husk fringed

Spec. Ch. Panicle upright spreading scarcely subdivided Flowers lanceolate nibbed furrowed with only 2 Stamina

Gathered at St Vincents Rocks Bristol by the Rev. Mr Hampton It grows mostly on barren sandy ground Walls & waste places but not commonly — It differs from B. sterilis in having diandrous lower lip downy with an erect more compact Panicle which tho' somewhat spreading is never lax nor pendulous — The base of the Spikelets is also more frequently purplish The Nerves of the Glumes are in general less prominent & the 2 principal ones more conspicuous on each side stand in this Species peculiarly close together. Root annual & am. flowers in June. Dr Withering was persuaded that this Grass sown in the Autumn might afford a good crop of early fodder in Spring

730.

Mount 1800 Published by Jn. Stevens &c.

BROMUS pinnatus.

Spiked Heath Brome-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, 2-ranked. *Awn* from below the top. *Inner huſk* fringed.

SPEC. CHAR. Spike ſimple, erect, two-ranked. Spikelets ſeſſile, roundiſh. Awns ſhorter than their huſk. Leaves almoſt naked.

SYN. Bromus pinnatus. *Linn. Sp. Pl.* 115. *Tr. of Linn. Soc. v.* 4. 301. *Sm. Fl. Brit.* 137. *Hudſ. ed.* 1. 41. *Hull.* 26.

Feſtuca pinnata. *Hudſ.* 48. *Relh.* 44. *Sibth.* 46. *Abbot.* 22. *Dickſ. H. Sicc. faſc.* 13. 8.

Gramen ſpicâ Brizæ majus. *Raii Syn.* 392.

THIS graſs is found on open commons or heaths in a free-ſtone ſoil; not unfrequently in Yorkſhire, Oxfordſhire and Kent, but rarely elſewhere. It is perennial, and flowers in July. Many botaniſts have united it with the preceding; but its greater ſmoothneſs, firmneſs and rigidity, indeed its whole aſpect, ſeem to authorize a ſpecific diſtinction.

The root is ſomewhat creeping. Stem hardly 2 feet high, very ſmooth, altogether erect, and ſcarcely tapering in the upper part. Leaves very rarely clothed with a few hairs on the upper ſide. Sheaths quite ſmooth and poliſhed. Spikelets in 2 ranks, and not leaning to one ſide, long, linear, a little downy. Calyx-glumes rather elliptical, many-nerved. Florets more numerous than in B. *ſylvaticus*, cloſely imbricated. Awn terminal as in that ſpecies, which induced Mr. Hudſon and others to refer both to the genus *Feſtuca*. This awn in the preſent plant is ſhorter than its glume; ſometimes ſo ſhort as to be hardly viſible. Inner glume very blunt, fringed with ſtrong rigid briſtles, not merely downy as in true *Feſtucæ*.—This graſs is even leſs fit for the food of cattle than the laſt.

729.

Hart. 1850. Published by J. Stewart, London.

BROMUS ſylvaticus.

Slender Wood Brome-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, 2-ranked. *Awn* from below the top. *Inner huſk* fringed.

SPEC. CHAR. Spike ſimple, drooping, leaning one way. Spikelets ſeſſile, roundiſh. Awns longer than their huſk. Leaves hairy.

SYN. Bromus ſylvaticus. *Tr. of Linn. Soc. v.* 4. 300. *Sm. Fl. Brit.* 136. *Hull.* 26.

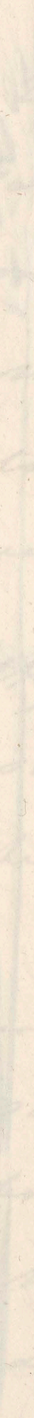
Feſtuca ſylvatica. *Hudſ. ed.* 1. 38. *With.* 158. *Relh.* 44. *Sibth.* 46. *Mart. Fl. Ruſt. t.* 114. *Dickſ. H. Sicc. faſc.* 13. 9.

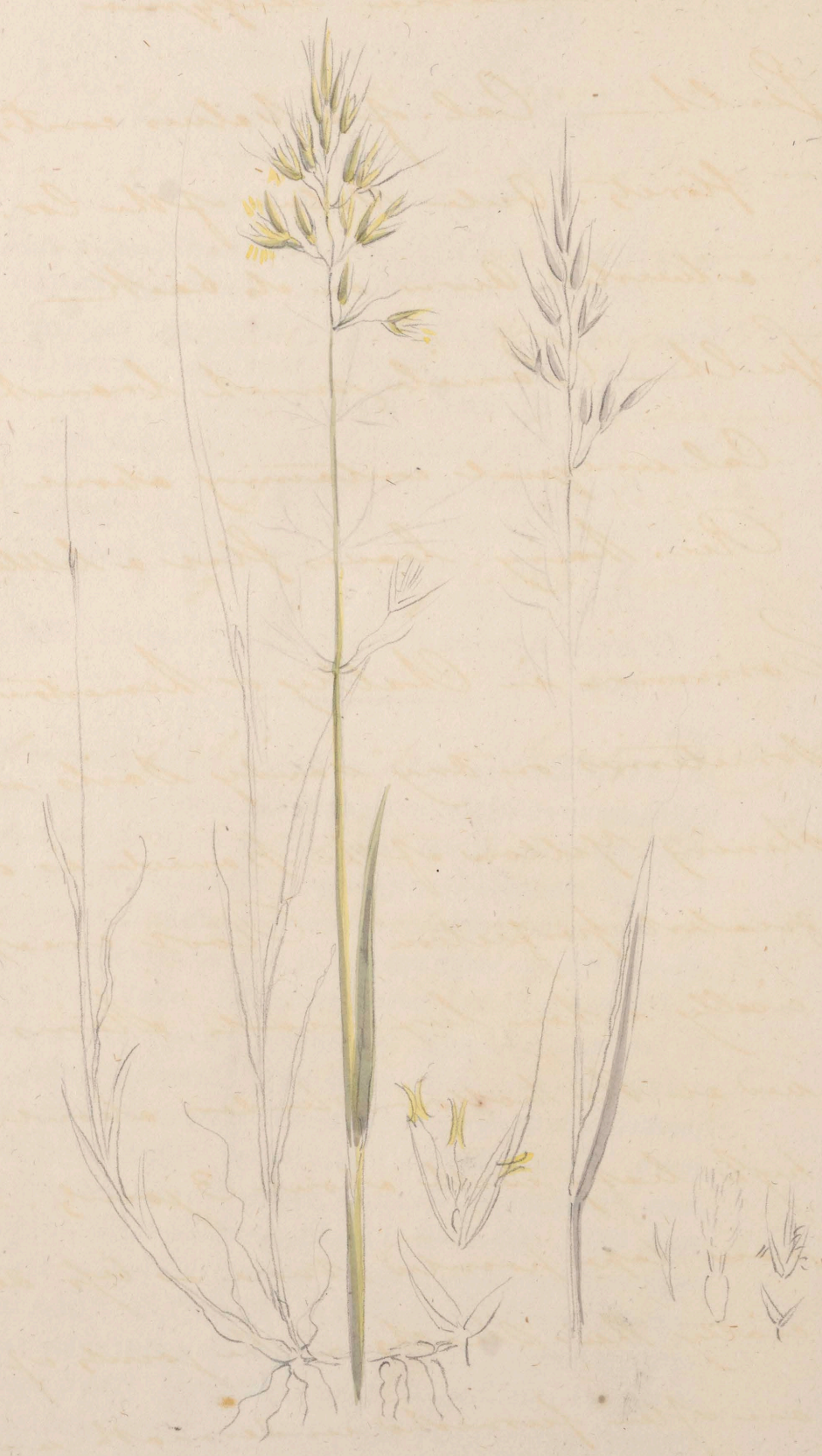
Gramen avenaceum dumetorum ſpicatum. *Raii Syn.* 394.

FREQUENT in copſes and thickets by the ſides of ſhady lanes, more eſpecially on a gravelly or ſandy ſoil, flowering in July, when its ſlender form, riſing above the ſurrounding herbage, renders it conſpicuous. It becomes ſtill more ſo in the latter part of ſummer by aſſuming a yellowiſh or tawny hue, eſpecially in the lower leaves. It is of no agricultural uſe.

The root is fibrous, tufted, perennial. Stem 2 feet or more in height, round, leafy, ſmoothiſh, tapering, very ſlender and a little drooping in the upper part. Leaves ſpreading, flat, pointed, a little rigid, rough, ribbed, more or leſs hairy, bright green. Sheaths ſtraight, cloſe, hairy. Stipula ſhort, blunt, torn. Spike ſimple, drooping, zigzag, formed of 6 or 7 alternate, ſeſſile, cylindrical, linear-lanceolate ſpikelets, all inclining towards one ſide, generally downy. Glumes of the calyx unequal, tipped with ſhort awns. Florets from 6 to 9, imbricated, at length a little ſpreading and ſomewhat cylindrical, in the upper part ſtrongly ribbed and rough. Awn terminal, rough, generally much longer than the glume. Inner glume blunt, fringed with rigid briſtles, on which I am perſuaded the eſſential character of *Bromus* depends more than on the inſertion of the awn.

Avena — 11





Avena flovescens — Yellow Oat Grass

Triandria Digynia

Spelt — Cal. of 2 Valves cont. 3 awned florets. Outer Valve of the Cor. bearing a twisted awn on its back

Spelt — Panicle much branched loose Cal unequal containing about 3 florets Rec. hairy. leaves flat a little downy

Common in Chalky or limestone Countries sometimes on dry sandy soils where the shining Yellow of the panicle is seen in its greatest perfection. Root creeping especially when luxuriant. Stems erect awned at the bottom slender about a foot high leafy with about 3 joints. leaves narrow taper pointed more or less downy especially their sheaths & the joints of the Stem are often furnished underneath with a circle of reflexed hairs. Stipula lonsly short Panicle spreading many flowered sometimes a little drooping its branches capillary rough

Tigrag its ultimate subdivisions alternate
Spikelets small spreading shining with
Yellow & a pale tinge of red compond of 2 or
rarely 4 florets. Cal. Valves acute with a
rough Keel - one of them twice as large as the
other & having a pair of Lateral Nerves
Outer Petal Mutic like the larger Valve
of the Cal. but bearing below its summit
a longish rough Awn inserted when dry
Common Recp.t of the florets bristly
We can confirm Mr Curtis' opinion of
the Value of this Grass as being highly
agreable to Cattle & forming a great share
of the best upland Pasturage in our dry
Countries

May 1st 1797 Published by Jas Sowerby London.

ARUNDO Phragmites.

Common Reed.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Florets* ſurrounded with long down.

SPEC. CHAR. Calyx containing five florets. Panicle looſe.

SYN. Arundo Phragmites. *Linn. Sp. Pl.* 120. *Hudſ. Fl. An.* 53. *With. Bot. Arr.* 116. *Relh. Cant.* 51. *Sibth. Ox.* 50.

A. vallatoria. *Raii Syn.* 401.

NOTHING can be more common than the reed here repreſented, in ditches, ponds, and the margins of rivers, where it flowers in the middle of ſummer, after which its waving ſilvery plumes, conſiſting of long down remaining in the brown huſks of the calyx, continue to ornament many a dreary fen throughout the autumn, lifting their heads high above all other herbage, till their dry ſtalks are cut for thatching or ſome ſuch uſe. They are for no purpoſe more uſeful, than to make warm ſheltered encloſures for a kitchen garden.

The roots are perennial, running far into the mud. Straws annual, about 6 feet high, erect, round, jointed, very ſmooth, leafy. Leaves alternate, long, lanceolate, tapering to a fine point, ſtriated, ſmoother and paler beneath, their edges a little rough; their baſes ſheathing the ſtraw and each other, and crowned with an extremely ſhort jagged ſtipula, accompanied on each ſide by a ſmall portion of ſilky down. Panicle nearly erect when in flower, purpliſh, but after impregnation its branches become more looſe and drooping. The calyx-valves are unequal, containing about five flowers (ſometimes fewer) placed in two ranks upon a ſmall ſtalk. Corolla of two valves, one of them very long and pointed, to the baſe of which is attached externally a tuft of long ſoft ſlender hairs, which are lengthened after flowering, and, ſpreading in every direction, give the feathery appearance above mentioned. The ſtamina are very ſlender. Styles reflexed, with thick tufted ſtigmas.

Published by J.t Sowerby London

ARUNDO epigejos.

Wood Reed.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Florets* ſurrounded with long down.

SPEC. CHAR. Calyx ſingle-flowered, longer than the corolla. Panicle erect; branches ſpreading. Flowers crowded, leaning one way. Leaves lanceolate.

SYN. Arundo epigejos. *Linn. Sp. Pl.* 120.

A. Calamagroſtis. *Hudſ. Fl. An.* 54. *With. Bot. Arr.* 117. *Relh. Cant.* 52. *Lightf. Scot.* 106.

Gramen arundinaceum, panicula molli ſpadicea, majus. *Raii Syn.* 401. *Scheuchz. Prod. tab.* 5.

OUR ſpecimens were gathered laſt July in ditches near Kennington. This ſpecies grows in wet thickets and the ſwampy parts of woods, not, like the preceding, in fens, nor is it near ſo common as that. It is very rarely found in Scotland, but we are certain of its being what Mr. Lightfoot intended, though he quotes *Flo. Dan. t.* 280, which is the true *Calamagroſtis*. Linnæus having miſquoted Scheuchzer under both theſe ſpecies, ſeems to have led Mr. Hudſon, and from him all other Britiſh writers, to miſtake both, though they have in ſome meaſure corrected the ſynonyms. The Herbarium of Linnæus (indeed a careful attention to his writings is ſufficient without it) has enabled us to clear up all this confuſion, as will farther appear when we deſcribe A. *Calamagroſtis* in the next plate.

The plant now before us is almoſt as tall and ſtrong as the Common Reed. The ſtraw upright, leafy, ſometimes branched a little at the bottom, though Mr. Hudſon remarks the contrary. Leaves broad, tapering to a fine point, ſomewhat glaucous; edges rough, and ſometimes the whole under ſurface is ſo, but that appears to be a variable circumſtance. Stipula much more conſiderable than in A. *Phragmites*. Branches of the panicle ſpreading; divided into denſe cluſters of flowers leaning one way, well compared by Dr. Stokes to *Dactylis glomerata*. Calyx-valves, as well as the petals, nearly equal. Down ſhorter than in A. *Phragmites*.

May 1. 1797 Published by J.s Sowerby London.

ARUNDO Calamagroſtis.

Small Reed.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Florets* ſurrounded with long down.

SPEC. CHAR. Calyx ſingle-flowered, longer than the corolla. Panicle erect. Flowers ſcattered. Leaves linear.

SYN. Arundo Calamagroſtis. *Linn. Sp. Pl.* 121. *Fl. Dan. t.* 280.

A. epigejos. *Hudſ. Fl. An.* 54. *With. Bot. Arr.* 117. *Relh. Cant.* 51.

Calamagroſtis minor, glumis ruffis et viridibus. *Raii Syn.* 401.

THIS is a rare plant compared with the preceding, nor has it been found in Scotland at all. It grows in moiſt woods and hedges, flowering in July. We received ſpecimens from Cambridgeſhire, by favour of Rev. Mr. Hemſted, and have others from Norfolk and Lincolnſhire.

Roots perennial, as in both the preceding; fibrous, not creeping. Straws ſeveral, 3 feet or more in height, round, poliſhed, leafy, much more ſlender than in the laſt. Linnæus deſcribes it as branched, and his ſpecimens, undoubtedly the ſame ſpecies with ours, are ſo. Leaves erect, with long ſheathing baſes, linear, narrow, not a quarter ſo broad as thoſe of A. *epigejos*, pointed, not quite ſmooth beneath, and ſometimes a little hairy above. Stipula pointed, ſometimes divided. Panicle erect, and its branches but little ſpreading till the ſeeds are ripe. Flowers erect, ſcattered, on capillary flower-ſtalks, not cluſtered nor leaning one way. Calyx-valves tapering, nearly equal, longer than thoſe of the corolla, which are unequal and cloven. Down ſcarcely ſo long as the calyx.

This is undoubtedly the A. *Calamagroſtis* which Linnæus deſcribed in both editions of *Sp. Plant.* as appears by authentic ſpecimens; neither can there be any doubt of its being No. 42 of *Flora Lapponica*, though, as he tells us in that work, his original ſpecimens gathered in Lapland were loſt by accident in going down a river of that country. The characters above given ſufficiently diſtinguiſh it from the *Arundo* in the laſt plate.

Friends 15

Arundo arenaria — Sea Reed or Marram

Triandria Digynia

Gen. Ch. Cal of 2 valves — florets over-
rounded with long down

Spec. Ch. Cal. simple flowered longer than
the Cor. Panicle spiked. flowers erect
beardless. leaves involute pungent

Frequent on the Sea Shores in loose
blowing sand to which it seems intend
ed by nature to give Stability & thus to
raise a bulwark against the encroach-
ment of the waves — On this account its
growth is much encouraged on the Coast of
Norfolk. where it is confounded with E-
lymus arenarius & even Carex arenaria
under the name of Marram & Acts of Pa-
liaments have been made for its preser
vation — it flowers in July

Root perennial creeping to a great ex
tent jointed. Stem nearly erect 3 feet
high hard round smooth jointed hairy
leaves a little spreading rigid sharp pointed
glaucous smooth their edges rolled in

furrowed above very smooth beneath a.
well as their sheaths — Stipula long &
lanceolate pointed torn. Panicle erect &
resembling a Spike as the branches are shor
& close pressed — flowers greenish white enc
Cal. glumes a little unequal lanceola
compressed keeled slightly 3 nerved the
keels rough. flowret solitary with short
hairs at the base it glumes like the Cal
but shorter. anthers purple. Germen in
verted with a bivalve membranous he
tang as in most grapes — Stigma long &
feathery —

Coleccion — 15

April 1. 1798 Published by Jas Sowerby London.

LOLIUM perenne.

Perennial Darnel, or Rye-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of one huſk, fixed, many-flowered.

SPEC. CHAR. Flowers beardleſs. The little ſpikes compreſſed, longer than the calyx.

SYN. Lolium perenne. *Linn. Sp. Pl.* 122. *Hudſ. Fl. An.* 55. *With. Bot. Arr.* 120. *Relh. Cant.* 52. *Sibth. Ox.* 50. *Leers Herb.* 47. *t.* 12. *f.* 1.

Gramen loliaceum anguſtiore folio et ſpica. *Raii Syn.* 395.

THIS very common ſpecies of graſs is well known to the farmer by the name of Rye-graſs, Ray-graſs, or Crap. Its agricultural merits were firſt diſcovered in Norfolk, and from thence the ſeeds have been diſtributed throughout the kingdom, thoſe who bought them little ſuſpecting the plant was already a weed in their own fields. Its chief uſe is for an early crop of hay upon high or ſandy lands. It makes a fine turf; but though the roots are perennial, it does not laſt many years, except (according to Stillingfleet) the ſoil be very rich.

Root of a few ſimple fibres. Stems a foot high, round, ſmooth, rigid, with ſwelling purpliſh joints. Leaves dark green; ſtipulæ ſhort and entire. Spike two-ranked and compreſſed, the common ſtalk zigzag. Huſks lanceolate and acute. Antheræ cloven at each end, purple. Stigmas ſeſſile, downy above. Germen roundiſh. Seed linear.

The ſpike is ſometimes branched in an alternate manner, and more frequently very much condenſed into a flat oval form. It flowers in June.

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Pub. 1 Nov. 1800, Published by P. Vaughan, Leyden.

ROTBOLLIA incurvata.

Sea Hard-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* fixed, moſtly ſingle-flowered, ſimple, or divided into 2 parts. *Flowers* ranged alternately on a jointed common ſtalk.

SPEC. CHAR. Spike round, awl-ſhaped. Calyx-glume awl-ſhaped, divided, cloſe preſſed to the ſtalk.

SYN. Rotbollia incurvata. *Linn. Suppl.* 114. *Sm. Fl. Brit.* 151. *With.* 169. *Hull.* 29. *Relh. Suppl.* 2. 8.
Aegilops incurvata. *Linn. Sp. Pl.* 1490. *Hudſ.* 441.
Gramen parvum marinum, ſpicâ loliaceâ. *Raii Syn.* 395.

FOUND on the ſea coaſt and in ſalt marſhes in ſeveral parts of the kingdom, flowering in Auguſt and September.

Root fibrous, annual. Stems numerous, procumbent in their lower part, branched, jointed and bent, very ſmooth, leafy. Leaves linear, pointed, recurved, rough on the edges and upper ſide; their ſheaths a little inflated, ſtriated, ſmooth, crowned by a ſhort blunt ſtipula. Spikes terminal, ſolitary, erect, a little curved, cylindrical, ſlender, very ſmooth, conſiſting of many flowers ranged alternately along one common jointed ſtalk, which is ſculptured with a little cavity on one ſide of each of its joints to receive each flower, and both before and after flowering the cloven valve of the calyx ſo exactly cloſes theſe cavities, as to form almoſt an uniform ſurface with the ſtalk. Calyx ſtriated, beardleſs, ſmooth. Corolla of 2 white membranous huſks. Germen inveſted with the uſual cloven nectary of graſſes. All the flowers are hermaphrodite and fertile. The joints of the flower-ſtalk, ſeparating, fall to the ground and diſperſe the ſeed.

No agricultural uſe is attributed to this graſs.

Rotbollia 16

July 1.st 1797 Published by J.t Sowerby London

HORDEUM pratenſe.

Meadow Barley.

TRIANDRIA Digynia.

GEN. CHAR. *Calyx* lateral, of 2 valves, containing a ſingle flower, and growing 3 together.

SPEC. CHAR. Lateral flowers abortive, ariſtated. Calyx-valves briſtle-ſhaped, rough.

SYN. Hordeum pratenſe. *Hudſ. Fl. An.* 56. *With. Bot. Arr.* 126. *Relh. Cant.* 54. *Sibth. Ox.* 51. *Mart. Fl. Ruſt. t.* 108.

H. nodoſum. *Linn. Sp. Pl.* 126.

H. murinum β. *ibid.*

Gramen ſecalinum. *Ger. em.* 29.* *Raii Syn.* 392.

A VERY common graſs in meadows and paſtures that are a little moiſt, as in the north part of Hyde Park, flowering in June.

Root perennial, fibrous, but often becoming knotty in a ſituation whoſe degree of moiſture is fluctuating, as happens alſo to *Phleum pratenſe*. Straw 18 inches or 2 feet high, erect, ſlender, ſmooth, bearing 3 or 4 leaves, but none near the top. Leaves narrow, pointed, roughiſh, often hairy on the upper ſide, having a long ſheathing ſtriated baſe, brown and contracted at its ſummit, and ſometimes crowned with a minute ſtipula. Spike terminal, erect, thick-ſet with 2 ranks of the ternate flowers. In every cluſter of theſe the middle flower is ſeſſile, and has the parts of fructification perfect; the two lateral ones are elevated on footſtalks, and have none, or only barren, organs of fructification; but the glumes of the corolla, as well as the calyx, are bearded in all. The inner valve of the central flower is much ſhorter than the other.

This graſs has ſome reſemblance to the ſtill more common H. *murinum*, but is much more tall and ſlender, and differs alſo in the ſtructure of its flowers. *Vaillant, tab.* 17. *f.* 6. is certainly our *pratenſe*, as quoted by Dr. Withering, and we have aſcertained ours to be the *nodoſum* of Linnæus by his herbarium, though he has miſquoted Ray, and deſcribed the lateral flowers as wanting *ariſtæ*; but that he has corrected in his manuſcripts.

Hordeum 17

[409]

HORDEUM pratense.

Meadow Barley.

TRIANDRIA Digynia.

Gen. Char. Calyx lateral, of 2 valves, containing a single flower, and growing 3 together.

Spec. Char. Lateral flowers abortive, awlated. Calyx-valves bristle-shaped, rough.

Syn. Hordeum pratense. Huds. Fl. Ang. 56. With. Bot. Arr. 120. Relh. Cant. 54. Sibth. Ox. 51. Mart. Fl. Rust. 108.

H. nodosum. Linn. Sp. Pl. 126.

H. murinum β. With.

Gramen secalinum. Ger. em. 29.* Raii Syn. 392.

A VERY common grass in meadows and pastures that are a little moist, as in the north part of Hyde Park, flowering in June.

Root perennial, fibrous, but often becoming knotty in a situation whole degree of moisture is fluctuating, as happens also to *Phleum pratense*. Straw 18 inches or 2 feet high, erect, slender, smooth, bearing 3 or 4 leaves, but more near the top. Leaves narrow, pointed, roughish, often hairy on the upper side, having a long sheathing striated base, brown and contracted at its summit, and sometimes crowned with a minute stipula. Spike terminal, erect, thick-set with a rank of the ternate flowers. In every cluster of three the middle flower is fertile, and has the parts of fructification perfect; the two lateral ones are elevated on footstalks, and have none, or only barren, organs of fructification; but the glumes of the corolla, as well as the calyx, are bearded in all. The inner valve of the central flower is much shorter than the other.

This grass has some resemblance to the still more common H. murinum, but is much more tall and slender, and differs also in the structure of its flowers. Willem. tab. 19. f. 6. is certainly our *pratense*, as quoted by Dr. Withering, and we have ascertained ours to be the *nodosum* of Linnæus by his herbarium, though he has misquoted Ray, and defended the lateral flowers as wanting awns; but that he has corrected in his manuscripts.

Triticum Junceum — Sea, Rushy

Mear Grass

Triandria Digynia

Gen. Ch. Cal of 2 Valves Salulary many

flowered upon a Zigzag toothed Rachis

Spec. Ch. Cal. bluntish 5 flowered Leaves

rolled inwards Sharp pointed —

Not uncommon in the loose Sand of

the Sea Coast which its long tough creep

ing roots throwing out numerous woolly

fibres, help to confine & keep stationary

to which purpose this grass cooperates with

Carex arenaria Elymus arenarius & Festuca

rubra. it flowers in July — the whole

plant is very glaucous the lower part of

the stem is known of a more or less violet

blue & very smooth or shining —

Leaves rigid & sharply pungent perfectly

smooth on the back the upper side marked

with numerous longitudinal rough furrows

Stipula very short - Spike solitary erect
straight stiff much broader in proportion
to its length than that of any other Britis
I. & consisting of numerous alternate fla
Spikelets of 5 or 6 florets each perfectly ses
& bearded. The glumes of the Cal. are pare
& blunt the interior value of the Cor. flat
& pointed

Protocum 18

Triticum repens — Creeping Wheat grass

Triandria Digynia

Gen. Ch. — Cal. of 2 Valves solitary many-flowered upon a Zigzag toothed Rachis.

Spec. Ch. — Cal. awl shaped many ribbed & flowered — florets sharp pointed leaves flat. Root creeping

This most troublesome & pernicious Weed is but too well known to Gardeners by the name of Couch Quick or Dog Grass — It thrives in all kinds of cultivated ground flowering from June to Sept.r & insinuating its long creeping perennial Root so deeply into the Earth as to be with great difficulty extirpated — for a very small p.t of the Root left behind soon sprouts forth into a fresh Crop — the fibres moreover are downy which seems a peculiar provision of Nature for ~~assis~~ the benefit of such Grasses as are fav.d with

it being found in most Barren sandy
Dry or barren Situations

Stems slender upright 2 feet high
Leaves linear flat spreading often
all directed to 1 side which gives the
grass a picturesque & Indian like as-
pect Sheath tight ribbed smooth
crowned with a short stipula The Spike
or Ear is 2 or 3 in long flat composed of
numerous Spikelets all whose glumes
are sharp pointed & often more or less
bearded. Sometimes the common Hypog
Stalk is hairy A glaucous Variety
common on the Coast is often mistaken
for D. juncea Ed 814.

Bartley Lambeth

TRITICUM loliaceum.

Spiked Sea Wheat-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of two valves, ſolitary, alternate, upon a zigzag *rachis*, and containing ſeveral obtuſe, but pointed, florets.

SPEC. CHAR. Calyx many-flowered. Spike ſimple, compreſſed; ſpiculæ ovate, all leaning one way.

SYN. Triticum unilaterale. *Ait. Hort. Kew. v.* 1. 122. but not of Linnæus.

T. maritimum. *With. Bot. Arr.* 130.

Poa loliacea. *Hudſ. Fl. An.* 43. *With. Bot. Arr.* 91. *Relh. Cant.* 37.

Gramen pumilum Loliaceo ſimile. *Raii Syn.* 395.

Gr. loliaceum exile durius. *Smith Rel. Rudb.* 13.

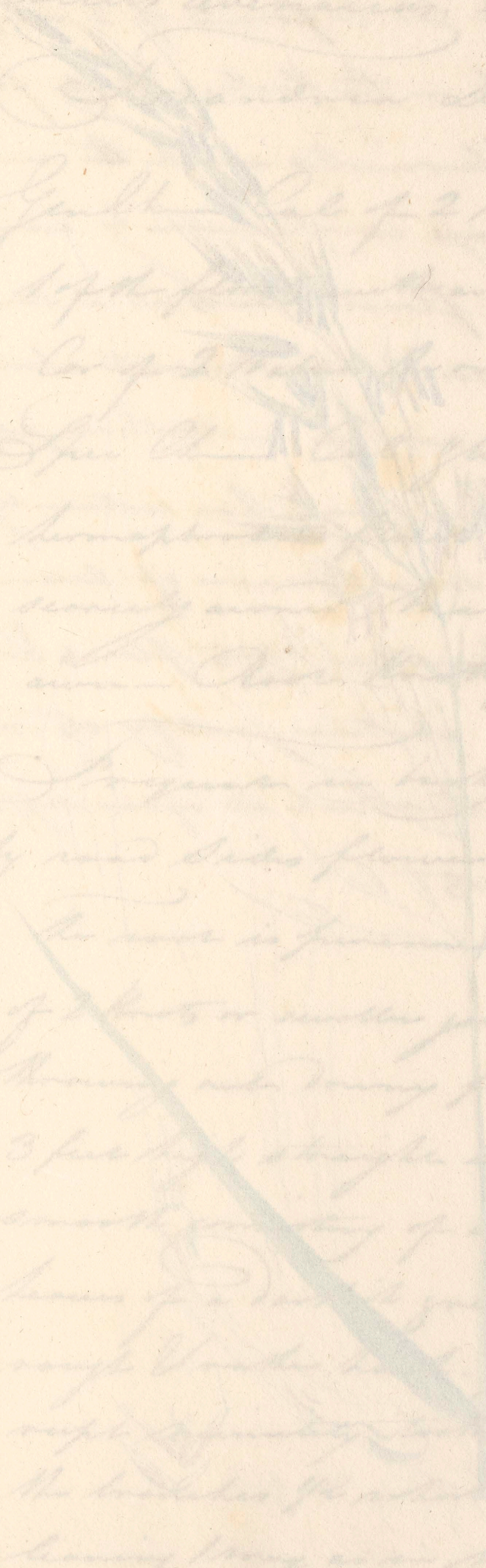
GATHERED by the Rev. Mr. Bryant on the northern coaſt of Norfolk. It occurs on the ſandy beach in many parts of England, according to Ray and Hudſon, flowering about Midſummer.

The root is annual, conſiſting of long downy fibres as in moſt graſſes that grow in pure ſand. Several ſhort rigid curved ſtems ariſe from it, clothed with ſheathing leaves, which are involute when dry. A ſhort notched beardleſs ſtipula crowns the inſide of their ſheaths. The general ſpike is terminal, erect, compoſed of from 8 or 9 to 12 or 15 erect flowers or ſpiculæ, placed alternately on each edge of the common *rachis* or ſtalk, but all directed to one of its flat ſides, which is by that means completely hidden, while the other is viſible behind. The calyx-huſks are lanceolate, equal, reaching to the top of the loweſt florets. The partial rachis is zigzag, and exactly like the general one; an argument for the propriety of conſidering the latter as a part of the fructification, and conſequently making the plant a *Triticum*, not a *Poa*. The florets are numerous; their outer valves very blunt, with a ſharp point, the inner lanceolate and acute. Nectary a minute concave ſcale. Stamina and piſtilla ſhort.

Linnæus has wonderfully erred in confounding this with his T. maritimum, which is a large branched graſs with linear ſpiculæ and acuminated florets, well deſcribed in *Sp. Pl.* and which has hitherto been found only in the South of France. T. unilaterale is no leſs diſtinct, and is well figured by Moriſon, *vol.* 3. *ſec.* 8. *t.* 2. *f.* 3.

3ª 2ª

Molucco



Holcus avenaceus. Oat like Soft Grass

Triandria Digynia

Gen ch— Cal of 2 Valves 2 flowered
1 of the flowers with an imperfect Germen
Cor of 2 Valves the outer one awned

Spec ch— Cal. glumes unequal smooth
hermaphrodite flower a little elevated
scarcely awned Male with a hunt
awn— Root knotty

Frequent in bushy places hedges &
by road sides flowering in June & July

The root is perennial formed generally
of 2 knots or swollen joints one above another
throwing out downy fibres. Stem upright
3 feet high straight entranched hairy
smooth consisting of about 3 joints.
Leaves of a darkish green. spreading flat
rough & rather harsh. Stipula short ab-
rupt minutely toothed. Panicle upright
the branches ½ whorled. & consequently
leaning 1 way as in many Grasses. The

branches rough & mostly subdivided —
Cal. shorter than the Cor. & formed of 2 unequ
sharp Values rough on the keel. Male flow
ofpits generally furnished with the rudim
of a germen & always conspicuously awnd
the hermaphrodite floret stands on a smal
footstalk & its awn is very minute almost
terminal scarcely visible — Anthers purpl
pendulous — This Grass has certainly a
great affinity to some species of Avena
but the small number of its florets & of
their germens being abortive justify its rem
val to Holcus with which it agrees offici
only in other respects.

J. Sowerby del.t Aug.st 1.1791.

HOLOSTEUM umbellatum.

Umbelliferous Chickweed.

TRIANDRIA Trigynia.

GEN. CHAR. *Cal.* five-leaved. *Cor.* of five petals. *Capſule* one-celled, nearly cylindrical, burſting at the top.

SPEC. CHAR. Flowers in umbels.

SYN. Holoſteum umbellatum. *Linn. Sp. Pl.* 130. *With. Bot. Arr.* 132. *Roſe's Elements (Appendix)*, 445. *t.* 2. *f.* 4.

Ceraſtium umbellatum. *Hudſ. Fl. An.* 201.

THIS plant was firſt diſcovered in England by Mr. John Pitchford, a moſt accurate and indefatigable botaniſt, who found it in the ſpring of 1765, on the walls of Norwich. We are informed it was a long time before this gentleman's diſcovery met with any credit, ſome of the firſt Engliſh botaniſts miſtaking this plant for Ceraſtium ſemidecandrium. Mr. Roſe however deſcribed and figured it, with its proper ſynonyms, in his Elements of Botany, publiſhed in 1775; a work which has eminently contributed to explain and recommend the ſyſtem and principles of Linnæus in this country. Soon afterwards Mr. Hudſon admitted it into the ſecond edition of his Flora, under the genus of Ceraſtium, with which it agrees in habit, and to which the number of its ſtamina and ſtyles are ſaid often nearly to approach. We have not however found the petals ſo regularly biſid as they are in Ceraſtium; nor have we ſeen more than three ſtamina, and as many ſtyles, in each flower; though it muſt be confeſſed we have found the capſules with five valves. Content with delineating every part as it occurred to us, we leave the matter to the deciſion of future obſervers.

The root is fibrous and annual; the whole plant a little glaucous, and remarkably ſmooth, except ſome glandular hairs on the ſtem, at a little diſtance from the flowers. The petals are occaſionally white or reddiſh, and irregularly notched at the top. The flower ſtalks are variouſly divaricated at different ſtages of their growth. This ſpecimen came from Bury.

Holosteum 61

Polycarpon 6 3♀ 3♂

Trianthema

Polycarpon tetraphyllum. Fourleaved Allseed

Triandria Trigynia

Gen. ch. Cal 5 leaved. Petals 5 ovate
minute. Caps. of 1 cell 3 valves —
Seeds numerous

Spec. ch. ——————

Gathered at Weymouth flowering in
the latter part of the Summer

Root small annual. Stem much bran
ched & spreading flat on the ground hairy
terminating in numerous forked panicles
Leaves opposite obovate entire smooth. a
little fleshy. in the lower part of the stem
roping each other in clusters — Stipula
& Bractea numerous white pointed.
Flowers small greenish white. Petals
shorter than the Cal. blunt. Fruit of 3 ovate
or lanceolate concave polished Valves —
This Genus belongs to the same natural
Order as Stellaria Cerastium &c

Parietaria o

Parietaria officinalis — Pellitory of the Wall

Icl. Pentandria Monogynia

Gen. ch. — Cal. 4 cleft inf. — Cor. 0. Stamina
clavate — Seed 1 clothed with the lengthened Cal.
Some flowers female only whose Cal. is unequal
Spec. Ch. — Leaves lanceolate ovate with
out lateral ribs at the base segments of
the involucrum ovate — Stem ascending
An Inhabitant of Rubbish & old Walls in
shelter'd places for it is more impatient of
cold than many of our Wild Plants & dies
as Stems perish at the first attack of frost
The flowers are abundant from June to the
End of Autumn — Root perennial
Stem bushy ascending spreading angular
hairy smooth very shining & generally red
Leaves alternate on stalks or a lengthened or
short ovate figure — obliquely twisted entire
a little hairy pale beneath the lateral
nerves all springing from the main rib con-
siderably above the base of the leaf in which
this differs from some foreign species — flowers
axillary — Each involucrum cut into 7 ovate

segments & containing 3 flowers all producing per-
fect seed — tho' the central one having no Stamina
is impregnated by ye neighbours — Stamina are
ciously jointed or wrinkled starting back elastic
by when one touched & so discharging the Pollen
with great force — Stigma pencilled — Seed ova
smooth — shining inverted with the 4 clept calyx
which in the 2 lateral blossoms is remarkably
long Pencil one often flowering —

This is reckoned among the emollient
herbs by writers on the Materia Medica &
indeed is of a mucilaginous Quality tho'
inferior in that respect to the Mallow Tribe —

Dipsacus Sylvestris — Wild Teasel

Tetrandria Monogynia

Gen Ch — Gen. Cal of many leaves par-
tial supr. of 1 leaf — Rec. chaffy. Seed
Crown. Cup shaped

Spec Ch — Leaves opposite serrates
Scales of the Recd. straight Gen. Calyx
inflexed longer than the head of flowers

Frequent by Road sides & on the
banks of Ditches flowering in July
Root biennial — We know of no use
to which this plant can be applied — Its
heads are sometimes mixed by accident
or fraud among parcels of the manured
T. but for want of the hooked Scales which
characterize that Species are entirely use-
less for dressing Cloth

Dipsacus pilosus — Small Teasel

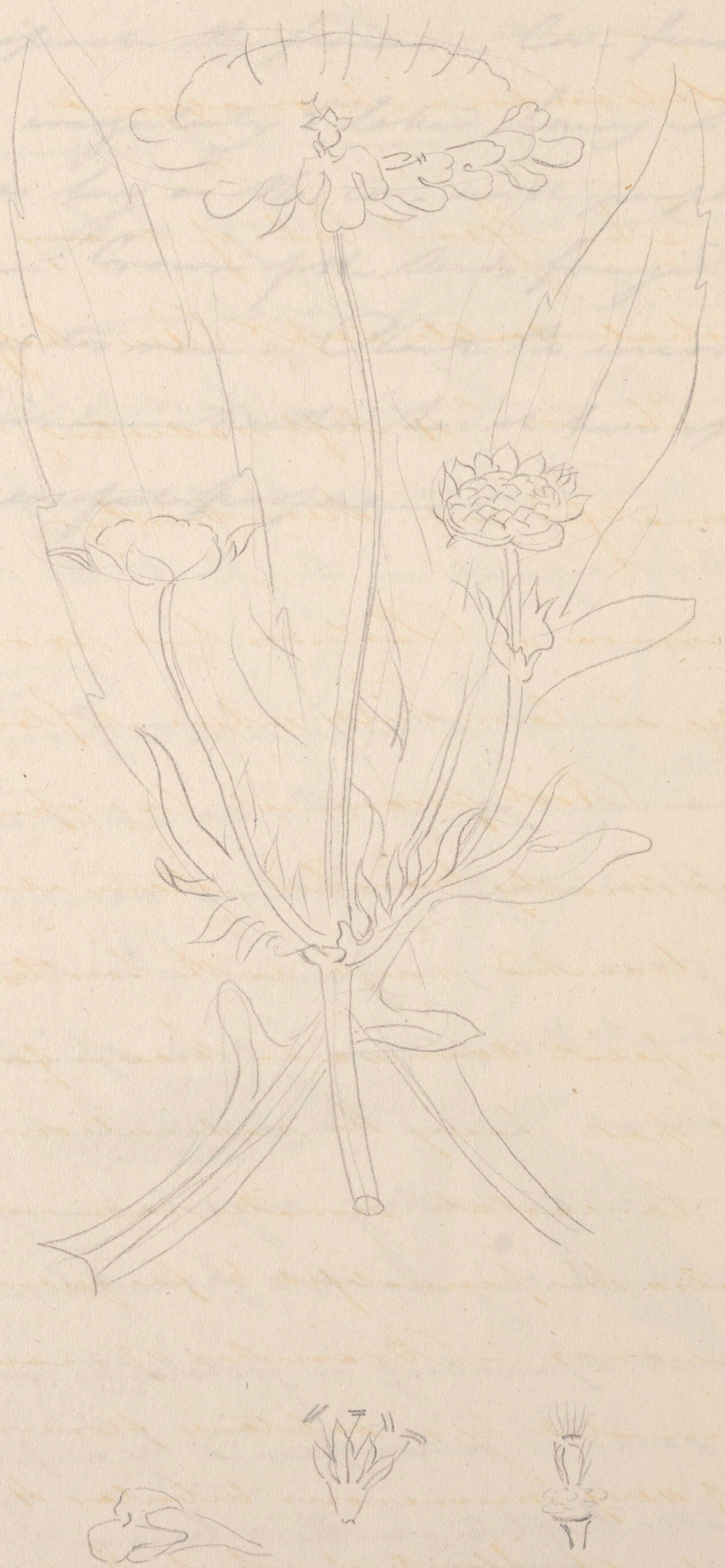
Tetrandria Monogynia

Gen. Ch. — General Cal. of many leaves
partial super. of 1 leaf — Receptacle
Seed crown cup shaped

Spec. Ch. — Leaves on footstalks with
an appendage at each side — Gen. Cal.
reflexed equal in length to the head of
flowers —

In moist shady waste ground on a
Calcareous soil. The small Teasel or
Shepherds staff sometimes occurs but is
far from being a general Plant — it flowers
in Augt. & Sept. — Root spindle shape
biennial — Stem 3 or 4 feet high erect
branched spreading angular very rough
with ascending hooked prickles — Leaves
opposite spreading on footstalks ovate point
ed serrated accompanied by a pair of
small leaflets at their base — Flowers
white in ~~long~~ round terminal long stalked heads
Common Cal. of several equal reflexed

lanceolate pointed leaves fringed with
hairs — as are also the tubulate strait scales
that seperate the flowers — Cor- funnel
shaped irregularly 5 lobed having Stamina
twice as long as the cor- with purple An-
thers — Crown of the seeds fringed —
This is too rare a Plant to encourage
the farmer — neither has it been applied
to any useful purpose —



Scabios a arvensis — Field Scabious

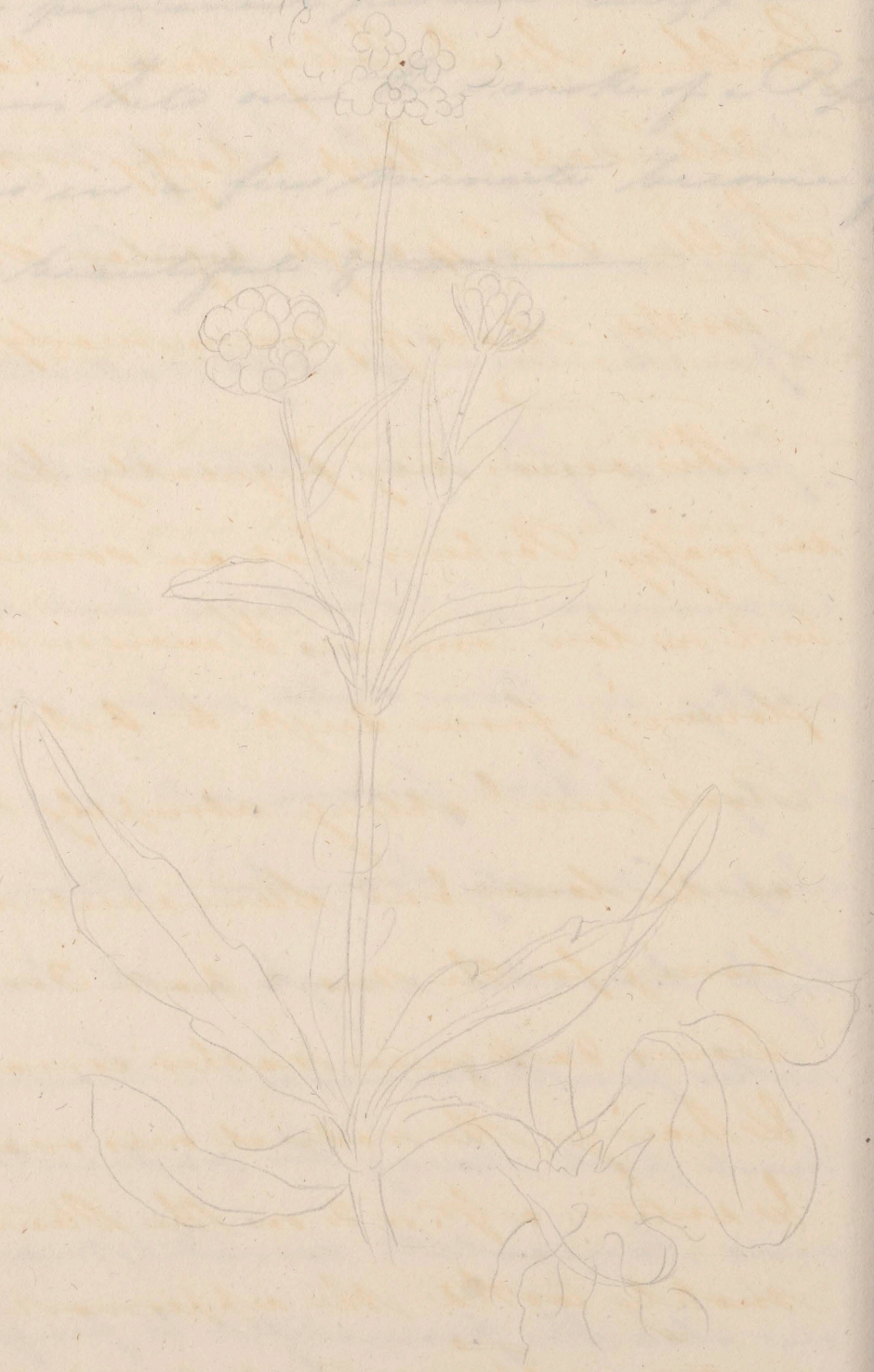
Tetrandria Monogynia

Gen. Ch. Gen. Cal. of many leaves
Partial double sup.r Rec. chaffy or naked
Spe. Ch. Cor.a 4 cleft radiating leaves
pinnatifid cut. Stem bristly

Common in Pastures but more especially in Corn-Fields where it flowers in July — Root perennial long spindle shaped mostly branched — Stem about 1½ high branched rough with bristles which rather point downward — Leaves for the most part being the radical ones numerous lanceolate serrated more or less as are also the pinnatifid & frequently cut upper ones — Branches spreading each terminated by a solitary flower composed of very numerous tubular 4 cleft pale purple florets of which the outermost are largest & labiate & give the whole a radiated

fegiure — Stamina capillary with flask col
antherae abortive in the outermost florets
Seed one to each floret quadrangular crow
ned by the permanent partial Calyx —
These flowers held over the smoke of a Pipe
of Tobacco in a few minute become of
a most beautiful green —

Scabiosa R



8/8

Scabiosa succisa — Devils bit Scabious

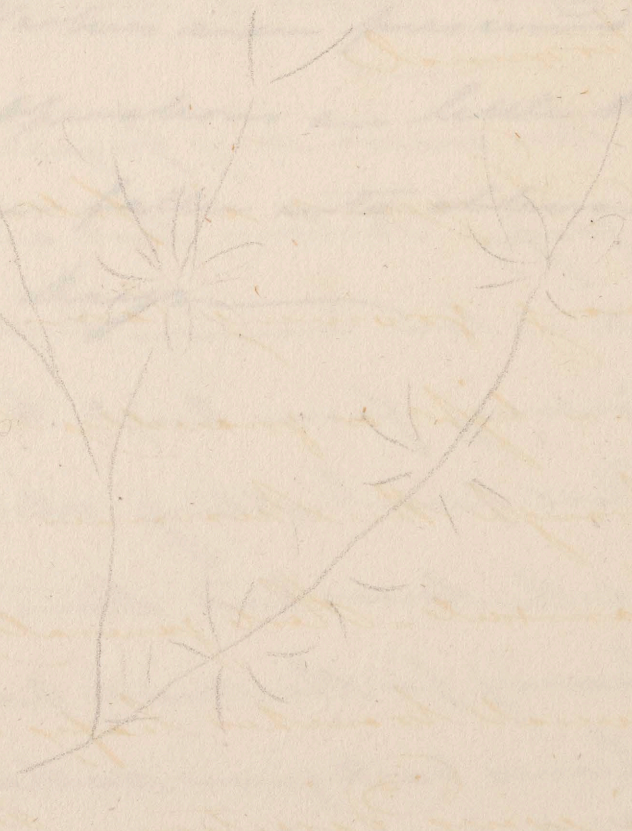
Tetrandria Monogynia

Gen. Ch. — Gen. Cal of many leaves. partial
Dbl — sup. Recp. chaffy or naked
Spec. Ch. — Cor. 4 cleft. regular Stem leaves
tootha Heads of flowers nearly globular

This occurs very frequently & abundantly
in grassy Pastures that are somewhat moist
both on low Commons & even on hilly spots
flowering from Augt to Octr
Root perenl oblong abruptly bitten off
at the lower end Stem erect round hairy
bearing for the most part 3 or 4 flowers
Leaves dark green rather coriaceous both
& hairy the radical ones ovate blunttish
& entire. a pr. or 2 on the Stem often re-
motely toothd the uppermost smallest &
entire. Flowers dark purplish blue often
milk white. in roundish heads standing
on long terminal flower stalks the central
one being the most considerable — The hairs
on these stalks even below the floral leaves

point upwards while all those on the main Stem are reflex downwards — Cal. hairy Florets nearly equally 4 cleft — Seeds crowned with bristles. — The old Writers tell us the superstitious Vulgar imagined that the root had been bitten off by the Devil for envy of the benefit its medicinal Vertues might render to Mankind — Hence also it seems those Vertues were presumed to vex the Devil & his operations are little thought of they have now fallen into oblivion in our unbelieving days —

Alexandria 3



Sherardia arvensis — Blue Sherardia

Tetrandria Monogynia

Genth — Cor 4 / Petal funnel shaped
sup — Seeds 2 in a crowned with 3 teeth
Spec Ch — All the leaves whorled flowers
terminal

Frequent in fallow Fields & waste
among growing Corn more particularly
on a light or gravelly Soil flowering
through the Summer — Root fibrous
& annual — Herb generally hairy Stems
several branched leafy angular spreading
in every direction — Leaves about 6 in a
whorl elliptical or Ovate pointed entire
rough set on the edges & keel spreading
Flowers in a small terminal umbel
enveloped in the uppermost Whorl
which generally consists of 7 or 8 leaves
Cal Superior of 2 coped permanent leaves
at length forming a crown to the Fruit

Cor purplish blue with a slender tube
gently tapering to the base — & a regu
lar 4 cleft limb — Stamina slender
shorter than the lobes of the Corolla
Fruit of 2 dry seeds mostly roughish
Dillenius certainly showed his Judge
ment in making this a distinct Genus
from all the other Stellate Plants
& it is well characterized by the 2 tuft
leaves of the Calx — a Branch with
Inflorescence possibly from one Lobe of the
Prop seems to have overlooked

Printed Hooper published by G. & S. Kearsley Londres

ASPERULA odorata.

Sweet Woodruff or Woodroof.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one funnel-ſhaped petal, ſuperior. *Seeds* 2, globoſe.

SPEC. CHAR. Leaves eight in a whorl, lanceolate. Tufts of flowers on ſtalks. Fruit briſtly.

SYN. Aſperula odorata. *Linn. Sp. Pl.* 150. *Sm. Fl. Brit.* 172. *Hudſ.* 66. *With.* 185. *Hull.* 37. *Relh.* 64. *Sibth.* 57. *Abbot.* 32. *Curt. Lond. faſc.* 4. *t.* 15. *Dickſ. H. Sicc. faſc.* 8. 7.

Aſperula. *Raii Syn.* 224.

ALMOST every dry mountainous wood abounds with the Woodruff, nor is it unfrequent in the more level counties on a calcareous ſoil. It flowers in May.

Roots perennial, creeping among dead leaves and the more light and friable vegetable mould, and throwing up numerous, upright, ſimple, annual, ſmooth, angular, leafy ſtems, about a ſpan high. Leaves 8 in a whorl, occaſionally 7 or 9, bright-green, rough at the margin only. Panicles forked, denſe, terminal, on longiſh ſtalks, generally 3 together. Flowers white, occaſionally fragrant, particularly at night. Corolla ſhorter than in ſome other ſpecies, but ſufficiently tubular to mark the genus. Fruit rough with aſcending briſtles.

We preſume the Engliſh name Woodruff alludes to the whorled poſition of the leaves, like an old-faſhioned ruff; and that Woodroof is a corruption of it.

The freſh herb has no ſmell; but as ſoon as it begins to dry it exhales a pleaſant and laſting fragrance like that of new hay verging towards the flavour of bitter almonds, to the great ſurpriſe of thoſe who gather it and keep it about them unawares.

The only Britiſh ſpecies of this genus, beſides that here deſcribed, may be found in our 1ſt vol., *t.* 33.

J. Sowerby del.t Oct.r 1 1791

ASPERULA cynanchica.

Squinancy-wort.

TETRANDRIA Monogynia.

GEN. CHAR. *Corolla* of one funnel-ſhaped petal. *Seeds* two, globoſe.

SPEC. CHAR. Leaves linear, in fours, except the upper ones, which are oppoſite. Stem ſomewhat erect. Flowers four-cleft.

SYN. Aſperula cynanchica. *Linn. Sp. Pl.* 151. *Hudſ. Fl. An.* 66. *With. Bot. Arr.* 159. *Relh. Cantab.* 64.

Rubeola vulgaris quadrifolia lævis, floribus purpurantibus. *Raii. Syn.* 225.

FOUND on dry, chalky, ſunny banks, in moſt parts of England, flowering in the middle of ſummer. Our ſpecimens came from Dartford. The root is perennial, but does not thrive well in a garden, requiring, probably, like many other plants, its natural ſhelter of herbage. The ſtems are moſtly procumbent, erect at their extremities only. The leaves very unequal in length, generally in fours, rarely five; blunt, but tipped with a ſharp point. The flowers have a great degree of beauty, being white or bluſh-coloured, elegantly marked with red lines. They have a ſweet ſmell, which, however, like that of Woodroof flowers, is rarely to be perceived. As they dry they become rugged, in which ſtate Linnæus appears to have deſcribed them in his Species Plantarum.

Dalechampius ſeems to be the chief authority for the reputation this plant has acquired in the cure of quinſies, from which its name is taken. He ſays it ſhould be applied externally as well as taken inwardly. It is out of uſe, as we are now furniſhed with remedies of more undoubted efficacy in the putrid as well as inflammatory ſore throat.

Asperula 4

J.ᵉ Sowerby Delᵗ Nov.ʳ 1793

GALIUM cruciatum.

Croſs-wort.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one petal, flat. *Seeds* two, roundiſh.

SPEC. CHAR. Leaves in fours, ovate, hairy. Stem ſimple above, hairy. Bunches of flowers lateral, with two leaves. Flowers polygamous. Fruit ſmooth.

SYN. Galium Cruciata. *Scop. Carn.* 100. *With. Bot. Arr.* 149.

Valantia Cruciata. *Linn. Sp. Pl.* 1491. *Hudſ. Fl. An.* 441. *Relh. Cant.* 377.

Cruciata. *Raii Syn.* 223.

THIS grows every where about hedges and thickets, flowering early in ſummer. The root is perennial, creeping and ſlender. Stems branched at their baſe, but perfectly ſimple in the upper part, weak, and reſting againſt buſhes, quadrangular, very hairy, jointed, and bearing at every joint four ovate, entire, ſoft, hairy leaves, from whoſe boſoms all the way up the ſtem ariſe ſeveral ſlender, forked, many-flowered peduncles, each furniſhed with two ſmall leaves at its firſt divarication. The flowers are formed exactly like thoſe of other ſpecies of Galium, except that ſome are only male, wanting a germen, and of the complete or hermaphrodite ones, ſome are five-cleft. The ſtyle is deeply cloven, and the rudiments of ſeeds two, though one generally proves abortive, and the fruit becomes globoſe, ſmooth, and is ſheltered by the reflexed leaves.

That this plant belongs to the natural genus of Galium there can be no doubt: ſee the queſtion well diſcuſſed in *Bot. Arr.* 149 and 1139, &c. but it does not follow that all the Valantiæ of Linnæus are of the ſame genus. V. glabra, articulata, and Aparine may be ſo, but ſurely V. muralis ought from its fruit to form a genus. It is to be wiſhed that and other foreign ſpecies ſhould be well examined as to their fructification, which appears in ſome reſpects to be very curious.

As the old name Cruciata is in fact an adjective, we have ventured to conſider it as ſuch, to avoid jarring terminations. See Remarks on Lathyrus Niſſolia, t. 112.

Galium saxatile — Smooth Heath Bed Straw

Tetrandria Monogynia

Gen. Ch. Cor. 1 Petal. flat 4 cleft

Seeds 2 roundish

Spec. Ch. — Leaves 6 in a whorl obovate obtuse tipped with a small point. Stem much branched prostrate Smooth — Fruit granulated

It is very abundant in heathy bushy places flowering plentifully from June to the End of Summer. Roots perenl. Creeping Stem much branched procumbent or straggling smooth bearing numerous whorls of spreading obovate leaves 6 in a whorl each tipped with a short bristly point & for the most part rough at the edge. The panicles are terminal 3 forked smooth flowers milk white small but conspicuous from their number. Fruit small neither bristly nor smooth but studded

all over with minute prominent granu-
lations by which circumstance alone this rock
be known from any other Boulder G.
except the trachyte which is widely d
ferent from it in other respects —

Ft Sowerby del. Dec.r 1792

GALIUM pusillum.

Least Ladies-bedstraw.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one petal, flat. *Seeds* two, roundish.

SPEC. CHAR. Leaves about eight in a whorl, rough, linear, pointed. Flower-stalks forked. Fruit smooth.

SYN. Galium pusillum. *Linn. Sp. Pl.* 154. *Hudſ. Fl. An.* 69. *With. Bot. Arr.* 154. *Villars Dauph. v.* 2. 324. *t.* 8.

NEITHER Ray nor Dillenius seems to have noticed this species of Galium, unless it be what the latter intended by *Gallium album supinum multicaule*, Rupp. Fl. Jen. 4. Raii Syn. 224. It does not well agree with Ruppius's description, which is however a very indefinite one, and it may nevertheless be the plant of Dillenius. This specimen was gathered in July last by Dr. Smith, at Matlock Bath, Derbyshire, where it grows abundantly, thriving much in the calcareous rocky soil originally deposited by the Matlock water. Mr. Hudson mentions the neighbourhood of Kendall in Westmoreland as its place of growth.

The root is perennial. Stems square, extremely numerous, from three to ten inches high, forming large tufts covered with innumerable milk-white flowers, very conspicuous at a distance. The leaves are tipped with a short pale bristle, and, as well as the stem, are generally, but not always, rough with short spreading hairs. They are not exactly linear, but rather lanceolate, from six to eight, or even nine, in a whorl, equally spreading; the lower ones so close together that they are almost imbricated; but that is by no means peculiar to this species. We have therefore omitted it in the specific character.

Our specimens agree precisely with those in the Linnæan Herbarium from Monſ. Gerard, except that his are rather less. There is no certain figure of this Galium extant, except the indifferent one of Monſ. Villars.

Galium Verum — Yellow Bedstraw

Tetrandria Monogynia

Gen Ch. Cor of 1 Petal flat supr
Seed 2 roundish

Spec Ch. Leaves 8 in a whole Verticil
channeld entire rough — Flowers in
dense panicles fruit smooth

Frequent in the borders of any Fields
on little bushy hills - flowering in the Month
of July & August — Root perennial
creeping of a tawny hue evincing its affi-
nity to Madder — The Power of this
Plant to coagulate Milk is well known
& Gerarde tells us the best Cheshire Cheese
in his time was made with it

J.ª Sowerby delt. May 1st 1793.

GALIUM boreale.

Croſs-leaved Ladies Bedſtraw.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one petal, flat. *Seeds* two, roundiſh.

SPEC. CHAR. Leaves in fours, lanceolate, three-nerved, not hairy. Stem nearly erect. Seeds briſtly.

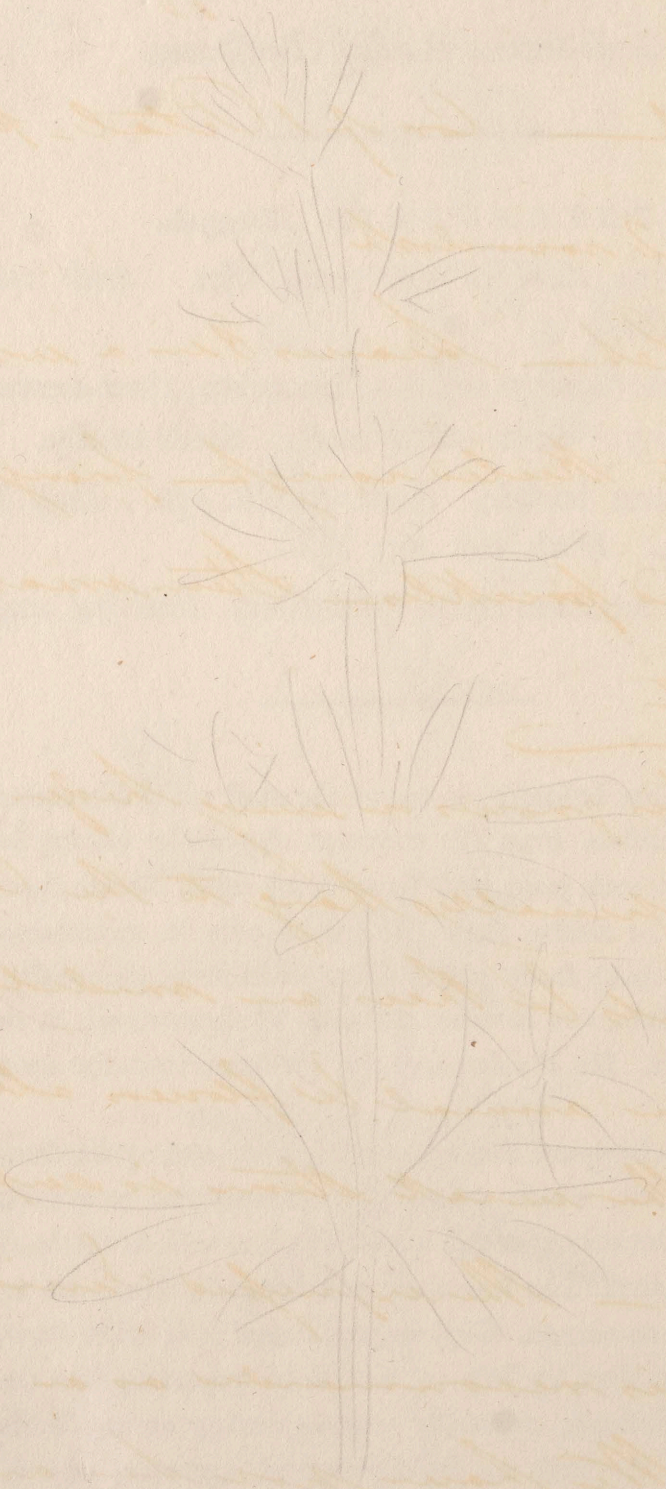
SYN. Galium boreale. *Linn. Sp. Pl.* 156. *Hudſ. Fl. An.* 70. *With. Bot. Arr.* 156.

Mollugo montana erecta quadrifolia. *Raii Syn.* 224.

THE Galium before us is one of the moſt eaſily determined, being diſtinguiſhed from the common *Aparine* by having four leaves only at each joint, and from every other Britiſh ſpecies by its hairy or briſtly fruit. It grows only in mountainous countries, in rocky ſhady places about rivers, very plentifully at Kirkby Lonſdale, and in other parts of Weſtmoreland, as well as in Scotland. Mr. Robſon ſent this ſpecimen from the county of Durham.

The root is long and ſlender, running deep among the ſtones, tinged with red, which colour it communicates to woollen. Stems much branched, rough to the touch as well as the leaves, though not hairy. The leaves are pale beneath, blunt, and very accurately three-nerved. Copious panicles of milk-white flowers terminate the ſtem in July, at firſt ſight appearing like thoſe of Galium Mollugo, eſpecially when growing among buſhes. The hairs on the fruit are ſlightly curved upwards, and of a whitiſh colour.

Galatians 5



Galium Aparine — Goose Grass or Cleavers

Tetrandria Monogynia

Gen. Ch. — Cor. of 1 Petal — stat. 4 apt.
Seeds 2 roundish

Spec. Ch. — Leaves 8 in a whorl lanceolate keeled rough fringed with reflexed prickles — Stem weak four cornered

This grows on every hedge the ripe seeds especially hang to the coats of animals & thus are widely diffused it is an annual & flowers all summer long The weak stem is supported by bushes — The expressed Juice of the Plant is recommended as an Antiscorbutic — We have not had an opportunity of judging of its merits nor does Dr. Wood alledge any such testimonies in its favour

March 1st 1797 Published by J.s Sowerby London.

GALIUM anglicum.

Small Ladies-bedſtraw.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one petal, flat. *Seeds* two, roundiſh.

SPEC. CHAR. Leaves about ſix in a whorl, lanceolate, pointed, ciliated with prickles. Stems ſtraggling, rough. Flower-ſtalks cloven. Fruit without hairs.

SYN. Galium anglicum. *Hudſ. Fl. An.* 69. *With. Bot. Arr.* 153.

G. pariſienſe. *Relh. Cant.* 67. *Linn. Sp. Pl.* 157?

Aparine minima. *Raii Syn.* 225. *t.* 9. *f.* 1.

SENT from Cambridgeſhire by the Rev. Mr. Hemſted. It is found alſo in Norfolk and Suffolk, though very rarely, for the moſt part upon walls in a dry ſandy ſoil, flowering in June and July, after which the plant is ſoon dried up and periſhes.

Root ſmall, annual. Stems ſeveral, ſpreading, branched, ſquare, their angles rough with reflexed briſtles. Leaves ſmall, about 6 in a whorl, reflexed, lanceolate, pointed, their edges, and ſometimes their upper ſurface, rough with briſtles pointing forwards. Flower-ſtalks terminal, ſlender, ſmooth, forked, with a pair of leaves at their firſt divarication, and here and there a minute ſolitary leaf above. Flowers pale greeniſh yellow, very ſmall, with pointed ribbed petals. Germen and fruit deſtitute of hairs, but when magnified they appear rough with minute tubercles.

This may poſſibly be, as Dr. Stokes ſuſpected, merely a variety of the G. *pariſienſe* of Linnæus; for no difference is diſcoverable between his original ſpecimens and ours, except the fruit of the former being thickly clothed with prominent hairs. Whether the abovementioned tubercles on the fruit of G. *anglicum* may, in any circumſtances, produce ſuch hairs, has not yet been aſcertained. In the mean while we here exhibit what is undoubtedly Mr. Hudſon's plant, as well as Ray's, that there may be no uncertainty about that part of the queſtion in future.

Rubrica 6

Rubia peregrina — Wild Madder

Tetrandria Monogynia

Gen. Ch — Cor 1 p. Petal bell shaped
sup. Berries 2 each with a single seed
Spec. Ch — Leaves about 4 in a Whorl
elliptical shining & smooth on their upper
side — Flowers 5 cleft

This is not unfrequent in South Wales
Cornwall Devonshire St Vincents Rocks
& some few other places in the S.W. of Eng.
It grows among bushes in a rich or loamy
soil flowering in July & ripening its berries
rather late in Autumn — Roots perennial
creeping their inner bark red or orange Col.
having the property of dying red like the
R. Tinctorum: from which however this Species
is most decidedly distinct & from which
it may be known by the smooth tho' finely
granulated upper surface of the leaves —
the Rent in Field Botanies is evergreen —

Stems branched square prickly bristle &
when not supported procumbent— leaves
rigid 4 (rarely 5 or 6) in a whorl— reflexed
shining elliptical broader & tip pointed
Near Rose of R. tinctorum very rough un
little hooked prickles on the margin & nerve
Panicles forked terminal. Calc. Cor al
most universally 5 clept— with 5 stamens
Yellowish green concave but shallow—
Germen smooth— berries in pairs sup bl
one of them often abortive

March 1795 Pubd. by J.e Sowerby London

EXACUM filiforme.

Leaſt Gentianella.

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* in 4 ſegments. *Cor.* ſalver-ſhaped, with an inflated tube. *Capſ.* with 2 furrows, 2 cells, and many ſeeds, burſting at the top. *Stigma* capitate.

SPEC. CHAR. Leaves ſeſſile. Stem filiform, forked. Flowers on long footſtalks.

SYN. Gentiana filiformis. *Linn. Sp. Pl.* 335. *Hudſ. Fl. An.* 103. *With. Bot. Arr.* 263. *Fl. Dan. t.* 324. Centaurium paluſtre luteum minimum noſtras. *Raii Syn.* 286.

THIS very uncommon and curious little flower was ſent us by Dr. Pulteney from Dorſetſhire, being found there, as well as in Cornwall, not very ſparingly, in boggy ſituations. It is an annual, and flowers in July, ripening its minute ſeeds in Auguſt.

Root fibrous, ſmall and whitiſh. Stem from two to four inches high, erect, round, ſlender, more or leſs branched in a forked manner, ſometimes from the very bottom; but the lateral branches have ſeldom ſtrength enough to become again forked, bearing only a pair of leaves about their middle, where the ſubdiviſion would have been. Leaves oppoſite, lanceolate, ſomewhat ſpatulate, entire, ſmall, and few in number, chiefly three or four pair near the root, and one ſmaller pair at each ſubdiviſion of the ſtem. Every part of the herb is ſmooth. Flowers terminal, ſolitary, ſtanding on long flower-ſtalks, which are in fact elongations of the ſtem or branch. Bracteæ none. Calyx ovate, divided half way down into 4 ſharp ſegments, with membranous edges. Tube of the corolla about as long as the calyx, inflated and pellucid; limb yellow, in 4 equal ſpreading concave ſegments, expanding only in bright ſunſhine; orifice naked, into which the 4 little ſhort curved ſtamina are inſerted. Germen elliptical; ſtyle about as long as the germen, ſlightly curved; ſtigma capitate, ſcarcely perceptibly cloven.

That this plant belongs to the genus of Exacum, and not to Gentiana, there can be no doubt. See Dr. Smith's *Icones pictæ faſc.* 3. *t.* 13, where the characters of Exacum and its allies are determined. But that genus was not known when Linnæus deſcribed the plant before us, nor had he ſtudied the natural order to which it belongs.

4ª - 1ª

Exercise 7

J.e Sowerby del.t May 1794

PLANTAGO maritima.

Sea Plantain.

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* 4-cleft. *Cor.* 4-cleft; its limb reflexed. *Stamina* very long. *Capſ.* with two cells, burſting all round.

SPEC. CHAR. Leaves linear, moſtly entire, channelled, woolly at the baſe. Spike cylindrical. Stalk round.

SYN. Plantago maritima. *Linn. Sp. Pl.* 165. *Hudſ. Fl. An.* 64. *With. Bot. Arr.* 144. *Relh. Cant. Suppl.* 2. 9.

P. marina. *Raii Syn.* 315.

NO plant varies more in ſize than this. Its leaves are ſometimes ſcarcely an inch, at other times more than a foot in length. The height of the ſtalk is more conſtant, but the number of flowers in the ſpike varies beyond computation. Ours is a moderately luxuriant ſpecimen. It loves a muddy ſoil, and flowers late in the ſummer. The root is perennial. It is as various in its place of growth as in ſize, being found on the higheſt of our mountains as well as on the ſhore, like Statice armeria. Hence it has been taken for P. alpina, which laſt is a very different plant, with ſhort oval ſpikes, and lanceolate flat leaves, and has never (we believe) been found in Britain. Still leſs reſemblance has our Plantago, though it has ſometimes dentated leaves, to P. Loeflingii, that having flat leaves, and very ſhort roundiſh pale ſpikes of flowers, much like thoſe of P. Pſyllium, and having certainly never been met with in our iſland.

P. maritima may be known by its very fleſhy and ſmooth leaves, channelled above and concave below, with a tuft of wool at their baſe, which indeed occurs in other ſpecies. The ſpike, however ſhort, is always cylindrical.

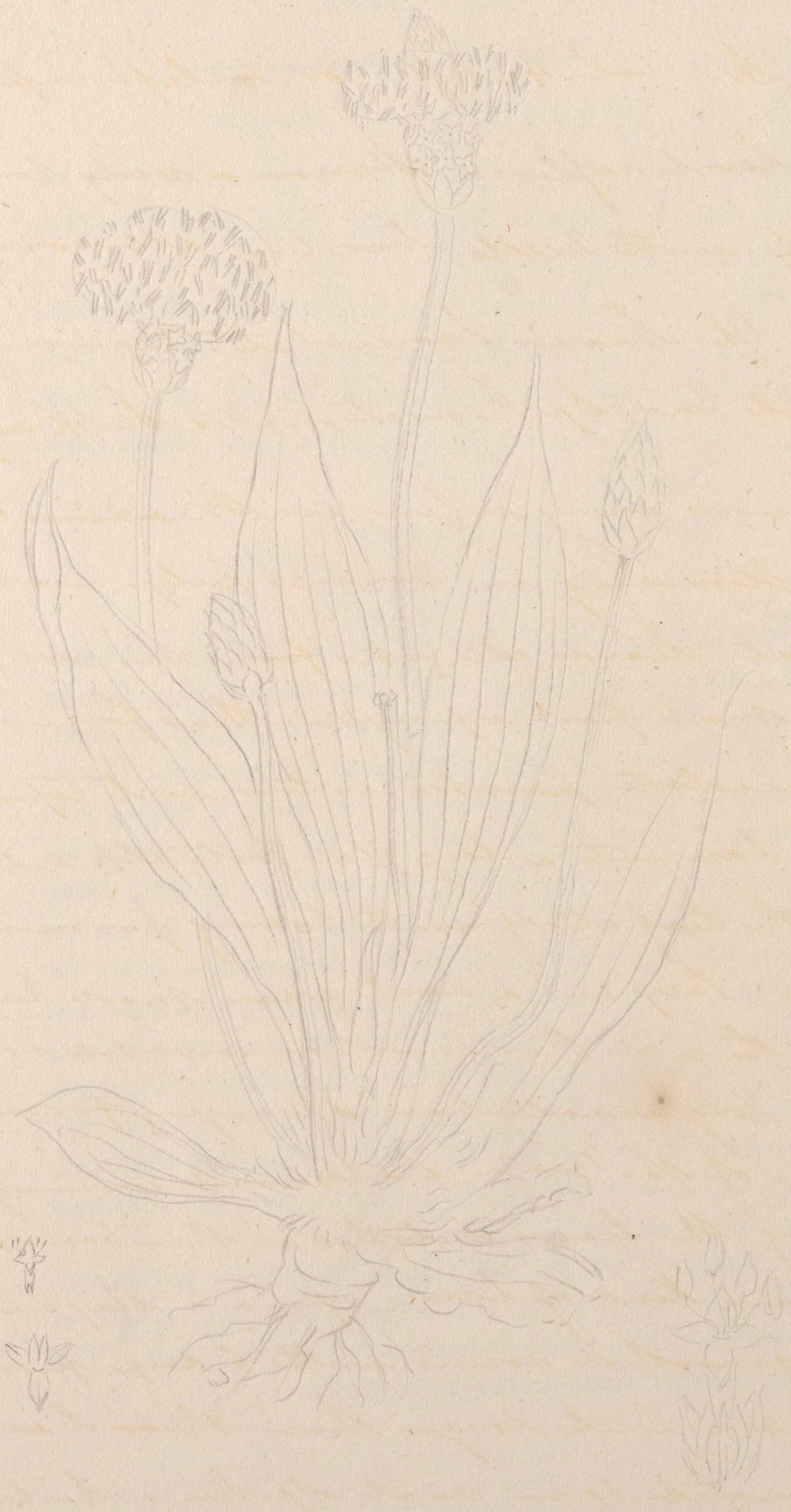
4a - 1a

[175]

PLANTAGO maritima.

See Plantain.

Plantage 8



Plantago lanceolata. Ribwort Plantain

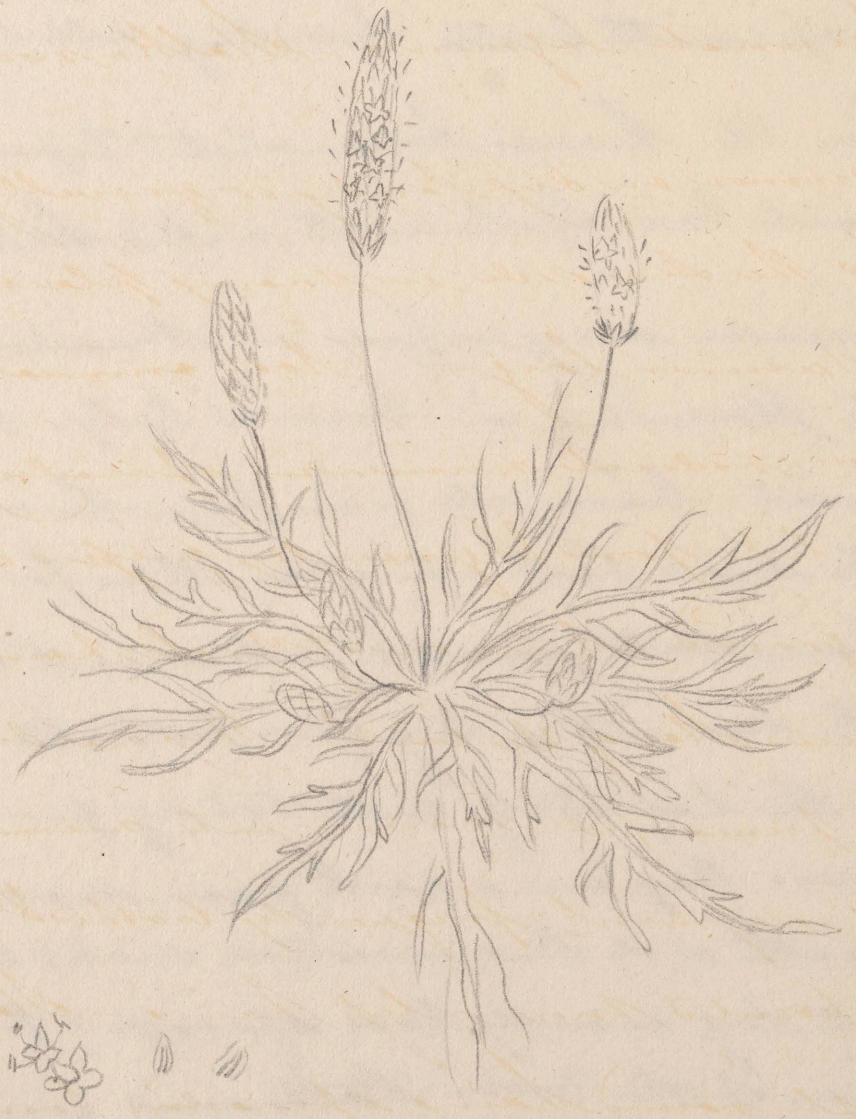
Tetrandria Monogynia

Gen. Ch. Cal. 4 cleft. Cor. 4 cleft inferior its limb reflexed. Stamina very long Cap. with 2 cells bursting all round

Spe. Ch. Leaves lanceolate - tapering at each end. Spike ovate naked. Stalk angular

Common every where in Meadows & Pastures flowering in June & July - root perennial. Leaves all grow from the root & are for the most part upright - their form is truely lanceolate pointed entire each tapering at the base into a long flat footstalk ribbed like the leaf itself with 5 strong prominent nerves. They are a dark green most hairy beneath & at their insertion inverted with white long woolly hair springing from the Crown of the root. Stalks erect growing from among the leaves & clothed at their base with the same kind of hair upwards they are simple smoothish round with 5 deep furrows twisted a little longer than their leaves & terminated by an ovate Spike which is imbricated with black scales & enlivened by the prominent cream coloured anthers

It has been recommended as a good food for Sheep - or made into Hay for Cattle.



Plantago Coronopus — Buckshorn Plantain

Tetrandria Monogynia

Gen. Ch. as before

Spec. Ch. Leaves linear in many pinnate Segments — Stalks round

Common on dry Sandy or gravelly ground & by the Sea side in many places flow. all Summer long. Root annual tapering. Leaves radical numerous spreading in a star like form & generally pressed close to the ground whence one of the old names of this Species Star of the Earth. They are divided in a pinnatifid manner into numerous deep Segments frequently toothed & subdivided pointed more or less hairy. Stalks several simple round hairy spreading from the base then ascending the central one only being quite erect. Spike about an inch long dense greenish. Corolla white. Anthers crowned by a membrane. Few Plants vary much in size — on dry exposed heaths the little hoary leaves seem pressed almost into the Earth & the Spikes are so short as to become

capitate in the Moreturne Variety / B. The leaves
are almost entire —

Centunculus. 9

Centunculus minimus — Chaffweed or
Bastard Pimpernel

Tetrandria Monogynia

Gen Ch. Cal 4 cleft. Cor 4 cleft imper
tubular limb spreading — Stam.
short smooth — Caps. of 1 cell bursting
all round with many seeds —

Spec Ch. . . . . .

One of the least of our perfect plants as
they are called which perhaps is reckond
more rare than it really is from its
being so easily overlookd — It grows on
watery sandy heaths flowering in June &
July — Root small & annual The herb
varies much in size like all annuals
Stem generally a little branched at the base
erect an inch or 2 high a little angular leafy
smooth — leaves alternate sessile spreading
ovate entire smooth — Flowers solitary
sessile in the bosoms of the leaves white or
reddish expanded only in the most brilliant
sunshine & very short lived — Segments of
the Cal. lanceolate acute. Cor. permanent
tubular at the base its limb in 4 acute
spreading segments — Stamina awl shape

smooth very short inserted into the tube —
Caps. globose crowned with the permanent
Style. —

Nov.r 1797 Published by J.s Sowerby London

EPIMEDIUM alpinum.

Barren-wort.

TETRANDRIA Monogynia.

GEN. CHAR. *Petals* 4. *Nectaries* 4 pouches, lying on the petals. *Calyx* oppoſite to the petals, caducous. *Pod* of one cell, with many ſeeds.

SPEC. CHAR. . . . . .

SYN. Epimedium alpinum. *Linn. Sp. Pl.* 171. *With.* 199. *Ait. Hort. Kew. vol.* 1. 157.

THE firſt information we had of this as a Britiſh production was from Thomas Giſborne, Eſq. of Yoxall Lodge, Staffordſhire, who about ſix or ſeven years ago received a living plant collected by Mr. Thomas Hutton ſome time before upon Carrock Fell, Cumberland. Our ſpecimen came from the garden of John Walker, Eſq. who laſt year received from Mr. Hutton a portion of the original root. Dr. Withering has lately introduced the *Epimedium* into his work on the authority of Dr. Richardſon, who is ſaid in Blackſtone's *Specimen Botanicum* to have found it in Bingley Woods, Yorkſhire, and of Mr. Robſon, who lately obtained a ſpecimen from Skiddaw. We think therefore there can be no farther doubt upon the ſubject. It is probable that this plant, curious and beautiful as it is, may have generally eſcaped notice, from flowering early in the ſpring, after which its leaves ſoon wither away, before the wild buſhy places it inhabits are commonly viſited by botaniſts.

Root perennial, ſlender, creeping. Stems upright, ſcarcely a foot high, round, ſmooth, ſimple, bearing one alternately branched upright panicle of dark red drooping flowers, and one large twice or thrice compound leaf, divided in a threefold order, and compoſed of large, thin and delicate heart-ſhaped, pointed, finely ciliated leaflets, glaucous beneath, pendent, and, from their almoſt capillary foot-ſtalks, trembling to every breath of air. The terminal leaflets, and one of the lateral ones, are ternate; the other lateral one moſtly ſimple: nor are the two ſides of the general leaf ever compounded exactly in the ſame manner. Perhaps what is called the ſtem ought to be reckoned only the foot-ſtalk of the leaf, which, as in *Turnera*, bears the flower-ſtalk. The peduncles are rough with glandular hairs. Calyx of four concave greeniſh leaves, falling off as the flower expands. Petals dark red, ovate, oppoſite to the calyx. Nectary of four oblong blunt yellowiſh pouches, opening inwards, full of honey, and lying on the petals. Stamina awl-ſhaped; antheræ united with them longitudinally, and burſting on each ſide by a cover which ſeparates from the baſe as in *Leontice* and *Laurus*. Germen ovate, becoming an oblong pod of one cell, two valves, and ſeveral ſeeds.

Epipogium

[459]

EPIMEDIUM alpinum.

Barren-wort.

TETRANDRIA Monogynia.

Gen. Char. Petals 4. Nectaries 4 pouches, lying on the petals. Cups opposite to the petals, caducous. Pod of one cell, with many seeds.

Spec. Char. . . . .

Syn. Epimedium alpinum. Linn. Sp. Plant. 1. 758.

Hort. Kew. 1. 197.

THIS is one instance among many that might be produced, of the inattention of botanists to the productions of our own country. Thomas Gilchrist, Esq. of Yoxall Lodge, Staffordshire, who, about six or seven years ago received a living plant collected by Mr. Thomas Hutton some time before upon Carrock Fell, Cumberland. Our gentleman came from the garden of John Walker, Esq. who last year received from Mr. Hutton a portion of the parent root. Dr. Withering has lately introduced the Epimedium into his work on the authority of Dr. Richardson, who is said to have found it in Bingley Woods, Yorkshire, and of Mr. Robson, who lately obtained a specimen from Scidaw. We think there can be no further doubt upon the subject. It is probable that this plant, conspicuous and beautiful as it is, may have generally escaped notice, from flowering early in the spring, when the leaves soon wither away, before the wild bushy places it inhabits are commonly visited by botanists.

Root perennial, fibrous, creeping. Stems upright, scarcely a foot high, round, smooth, naked, bearing one alternately branched upright panicle of dark red drooping flowers, and one large twice or thrice compound leaf, divided in a threefold order, and compound leaves, thin and delicate heart-shaped, pointed, finely cilliated, glutinous beneath, pendent, and from their almost capillary footstalks, trembling to every breath of air. The terminal leaflets, and one of the lateral ones, are ternate; the other lateral one mostly simple: nor are the two sides of the general leaf ever compounded exactly in the same manner. Perhaps which is called the stem ought to be reckoned only the footstalk of the leaf, which, as in Tarrya, bears the flower-stalk. The petioles are sheath with clasping bases. Calyx of four concave greenish leaves, falling off as the flower expands. Petals dark red, ovate, opposite to the calyx. Nectary of four oblong blunt yellowish pouches, opening inwards, full of honey, and lying on the petals. Stamens awl-shaped, anthers united with them longitudinally, and swelling on each side by a cleft which disparates from the base as in Laurus and Tarrya. Germen ovate, becoming an oblong pod of one cell, two valves, and several seeds.

May 1st. 1795. Published by Jas Sowerby London.

CORNUS sanguinea.

Wild Cornel-tree, or Dog-wood.

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* of 4 teeth. *Petals* four. *Drupa* inferior. *Nut* of two cells.

SPEC. CHAR. Branches ſtraight. Leaves ovate, green on both ſides. Cymes without involucra.

SYN. Cornus ſanguinea. *Linn. Sp. Pl.* 171. *Hudſ. Fl. An.* 70. *With. Bot. Arr.* 160. *Relh. Cant.* 68. *Sibth. Oxon.* 61. *L'Herit. Corn.* 5.
C. fœmina. *Raii Syn.* 460.

COMMON every where in hedges, yet moſt plentiful on a chalk or lime-ſtone ſoil. It flowers in June, and the berries ripen in Auguſt.

This ſhrub grows to the height of 4 or 5 feet; its wood is hard and even, fit for the uſe of turners, the bark ſmooth and of a dark red, except on the very youngeſt branches. Leaves oppoſite, ovate, entire, ſtrongly nerved, green (not ſilky) beneath, entirely red before they fall, as in many American ſhrubs, to which country the genus of *Cornus* (though not this ſpecies) moſtly belongs. Cymes terminal, flattiſh, of many greeniſh-white flowers, with an unpleaſant ſmell. Petals revolute in the margin. Germen crowned with a glandular ring, into which the petals and ſtamina are inſerted. Stigma obtuſe. Berries dark purple, very bitter, as is the whole plant. It is ſaid oil for lamps may be procured from them if boiled in water and preſſed. See Ray's Synopſis 460.

March 1st 1796 Published by Jas Sowerby London.

CORNUS Suecica.

Dwarf Cornel.

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* of 4 teeth. *Petals* 4. *Drupa* inferior. *Nut* of 2 cells.

SPEC. CHAR. Herbaceous. Flower between two branches.

SYN. Cornus Suecica. *Linn. Sp. Pl.* 171. *With. Bot. Arr.* 161.

C. herbacea. *Hudſ. Fl. An.* 71.

Chamæpericlymenum. *Raii Syn.* 261.

MR. William Travis of Scarborough gathered the ſpecimen here figured on the ſide of a valley in that neighbourhood, called the *Hole of Horcum*, where this alpine plant grows abundantly, as well as about the Cheviot hills, Northumberland, and in the Highlands of Scotland, flowering in June and July. It is nearly allied to a favourite American plant, C. *canadenſis*, but does not thrive ſo well in a garden.

Root perennial, creeping, long and ſlender. Stems perfectly herbaceous, erect, riſing to the height of 3 or 4 inches, ſquare, leafy. Leaves oppoſite, ſeſſile, ovate, entire, ſtrongly ribbed, without ſtipulæ. Flowers in a little terminal pedunculated umbel, with a large involucrum of 4 ovate unequal white leaves, often bordered with red, and turning green as the fruit ripens. Each flower ſtands on a ſhort partial ſtalk, and is in every part, except the ſtamina, of an exceedingly deep purple, almoſt black. Stamina and antheræ whitiſh. The umbel might eaſily be taken, by a caſual obſerver, for one ſimple flower with 4 white petals, and we are afraid Ray underſtood it ſo, having perhaps not ſeen it alive. The fruit is round, red, ſweetiſh. On each ſide the ſtalk that ſupports the umbel ariſes the rudiment of a branch, which overtops the fruit before it arrives at maturity. The preſence of theſe branches diſtinguiſhes this ſpecies from *Cornus canadenſis*.

Cornus 11

Alchemilla vulgaris – Common Ladies Mantle

Tetrandria Monogynia

Gen. Ch. Cal in 8 Segments – Cor 0.

Sem 1 naked

Spec Ch – Leaves lobed plaited

A native of dry Heathy mountainous
Pastures in which it often constitutes a great
part of the herbage flowering from the End
of May to August

The Root is woody & perennial with fibres
running deep into the ground – Stems more
or less procumbent alternately branched round
having hairy – Radical leaves on long footstalks
large roundish many lobed plaited serrated
more or less hairy especially beneath – The Ver
dure of their upper surface is remarkably fine
The Stem leaves are much smaller almost
sessile connected with a pair of large toothed
Stipula which embrace the Stem & the upper
leaves gradually diminish into Bracteæ
Flowers in terminal corymbose Clusters numerous
green downy their Centre Yellow Structure of

the flower much as in A Alpina Style gene-
rally simple with a capelate stigma but som-
times there are 2 styles & in that case 2 kinds
The A minor of Hudson's 1st Edition seems a
trivial Variety more downy than the comm-
kind from growing in more exposed places

April 1st 1795 Published by J.t Sowerby, London

ALCHEMILLA alpina.

Alpine Ladies Mantle.

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* in 8 ſegments. *Cor.* none. *Seed* 1, naked.

SPEC. CHAR. Leaves digitate, ſerrated.

SYN. Alchemilla alpina. *Linn. Sp. Pl.* 179. *Hudſ. Fl. An.* 71. *With. Bot. Arr.* 162.

A. Alpina pentaphyllos. *Raii Syn.* 158.

MOST rocky mountains in the alpine parts of England and Scotland produce this elegant little plant; and in proportion to the barrenneſs and openneſs of its ſituation, is the rich ſilvery ſattin of the back of its leaves more denſe and ſplendid. It is moſt conſpicuous when agitated by the wind; for the flowers, though they partake externally of the ſame ſilvery hue, are ſmall and inconſiderable.

The root is perennial, ſtrong, and deeply fixed in the clefts of rocks, chiefly preferring the micaceous kind. Leaves radical, on long ſlender footſtalks, deeply cloven into five (rarely more) obovate ſerrated ſegments, dark green and ſmooth on the upper ſide, very ſilky beneath. Stalk erect, alternately branched, with a ſmall leaf and 2 ſtipulæ at each ſubdiviſion. Flowers on partial ſlender ſilky flower-ſtalks, downy without, ſmooth and green within. Calyx cup-ſhaped, rim ſpreading, in 4 large ſegments, with 4 ſmall intermediate, rather external, ones, oppoſite to which laſt the ſtamina are placed. Germen ovate, in the bottom of the calyx, which inveſts alſo the ripe ſeed. Style from the baſe of the germen, evincing its affinity to *Potentilla*, *Fragaria*, &c. which its habit and aſtringent qualities confirm. The flowers appear in July.

Alchemikal 12

Hedemilla arvensis — Field Ladies Mantle
or Parsley Piert

Tetrandria Monogynia

Gen Ch — Cal. in 8 segments. Cor 0. Seed 1
naked

Spec Ch. Leaves plain 3 lobed notched

Very frequent in fallow fields Gardens
& Mossy banks when the soil is gravelly
or sandy shooting up in Autumn & in mild
Weather during the course of the Winter & early
Months & flowering all Summer long

Root annual small — Stems numerous
spreading or prostrate round hairy — Leaves
alternate on short footstalks plain palmate
3 lobed deeply cut somewhat glaucous & a
little hairy marked with strait ribs — Stipules
attached to the footstalk large deeply cut
Flowers in axillary hairy tufts green & in
conspicuous Cal urn shaped angular with 4
large segments & 4 smaller intermediate ones
Stamina generally 4 No Style but 1 inserted
into the Mouth of the Cal. Germen in the

bottom of the Cal. ovate small with a simple
Style springing from its base — Stigma clover
sometimes there are 2 formers & Styles in 1 Cal
as in the common R. t 597. with which this plan
most undoubtedly accords as to Genus. — Obs. Stig
be insertion of the Stamina & Style the alterna
small lobes of the Cal. & we may add its flow
& scent resembling Burnet all prove its relat
to the dioscorous Plants — It was formerly
esteemed to promote Urine very powerfully
consequently to remove the Gravel & Stone

J. Sowerby del. June 1, 1792.

CUSCUTA Europæa.

Greater Dodder.

TETRANDRIA Digynia.

GEN. CHAR. *Calyx* four-cleft. *Corolla* of one petal. *Capſule* two-celled.

SPEC. CHAR. Flowers ſeſſile, moſtly four-cleft.

SYN. Cuſcuta Europæa. *Linn. Sp. Pl.* 180. *With. Bot. Arr.* 165.

C. major. *Raii Syn.* 281.

OF all paraſitical plants, the Dodder tribe are the moſt ſingular, truſting for their nouriſhment entirely to thoſe vegetables about which they twine, and into whoſe tender barks they inſert ſmall villous tubercles ſerving as roots, the original root of the Dodder withering away entirely as ſoon as the young ſtem has fixed itſelf to any other plant, ſo that its connexion with the earth is cut off.

The ſpecies of Cuſcuta are very ill underſtood. Notwithſtanding the doubts of Dr. Stokes in the *Bot. Arr.* whether the true Linnæan C. *Europæa* was ever found in England (the C. *Epithymum*, which has five-cleft flowers, being the moſt frequent), we think there can be no doubt of its being our plant. This ſpecimen was gathered on the common heath, *Erica vulgaris*, on One-tree-hill at Greenwich. The flowers are generally found with 4 diviſions, rarely occurring with 5. It may be met with plentifully in flower in July and Auguſt.

Jan.ʸ 1.1787 Published by J.ᵒ Sowerby Lond.ⁿ

CUSCUTA europæa.
Greater Dodder.

TETRANDRIA Digynia.

GEN. CHAR. *Cal.* 4-cleft. *Corolla* of one petal. *Capſule* 2-celled.

SPEC. CHAR. Flowers nearly ſeſſile. Corolla without ſcales. Stigmas ſimple.

SYN. Cuſcuta europæa. *Linn. Sp. Pl.* 180. *With. Bot. Arr.* 165. *Fl. Dan. t.* 199. inaccurate.

WE have been led into an error in the firſt volume of this work, p. 55, concerning the moſt common Britiſh *Cuſcuta*, which, from truſting too much to the Linnæan ſpecific character, we there publiſhed as the *europæa*, notwithſtanding Dr. Stokes's juſt remarks in the *Bot. Arr.* which ought certainly to have warned us. We however take the firſt opportunity of correcting this error, Mr. Sowerby having laſt autumn received wild ſpecimens of the real *europæa* from Mr. Alexander Smith of Aberdeen, and others from the Rev. Mr. Hemſted, which have at the ſame time verified the plant as a native of Britain, and helped us to fix an eſſential character between that and the other. This character conſiſts in the total want of the nectary, or more properly ſcales, at the baſe of the ſtamina. The true *europæa* is alſo larger in all its parts, except that the ſtyles are rather ſhorter, and generally more divaricated. The ſimple ſtigmas of both theſe ſpecies diſtinguiſh them from C. *americana*, which has capitate ſtigmas. The number of ſtamina, and ſegments of the corolla, varies from 4 to 5 in all the ſpecies; the latter we have found the moſt prevailing, at leaſt in the *Epithymum*, *americana*, and a new Eaſt Indian ſpecies; ſo that perhaps the genus ought to be removed to the 5th claſs. C. *europæa* grows paraſitically upon nettles, flax, thiſtles, &c. flowering in Auguſt and September. The corolla is very thin, pellucid, reticulated, and permanent.

We beg leave to ſubſtitute the following ſynonyms and characters for thoſe already given to our *Tab.* 55.

CUSCUTA Epithymum.
Leſſer Dodder.

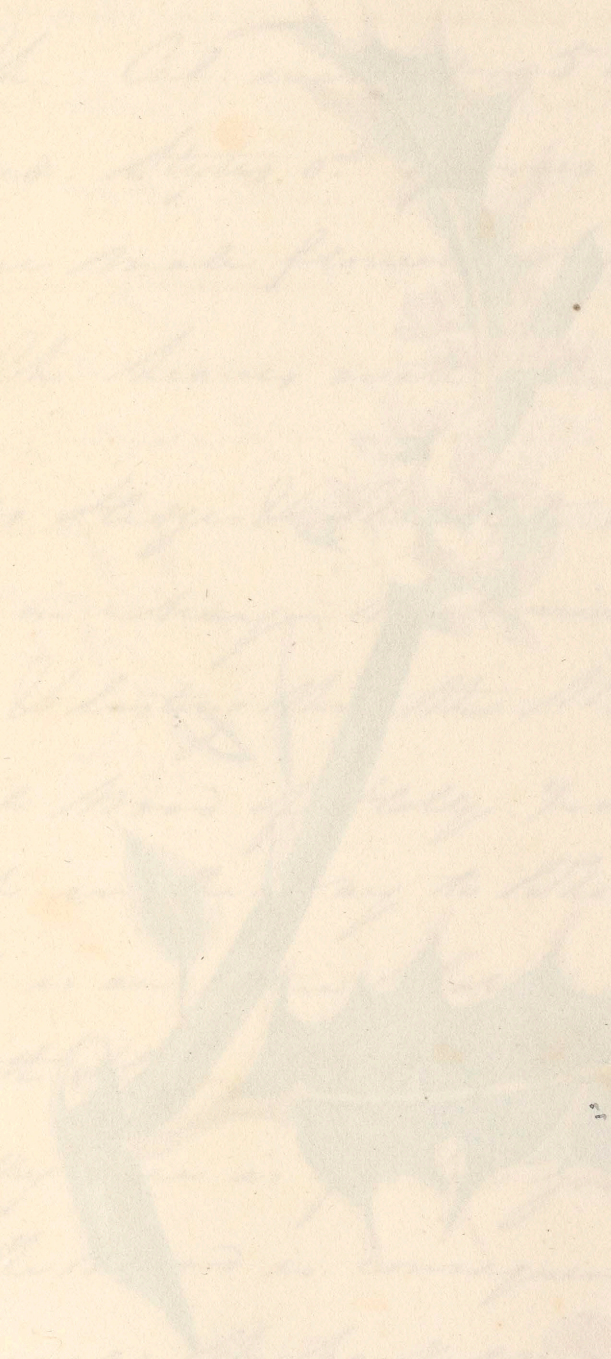
SPEC. CHAR. Flowers ſeſſile. A fringed ſcale cloſe at the baſe of each ſtamen. Stigmas ſimple.

SYN. Cuſcuta Epithymum. *Linn. Syſt. Veg. ed.* 13. 140. *With. Bot. Arr.* 166. *Fl. Dan. t.* 427. bad.

THE ſynonym of Ray probably belongs to this, being by far the moſt common, but the C. *major* of Bauhin muſt be the other. Britiſh authors in general have either confounded the two, or taken, as we did, the *Epithymum* for the *europæa*.

Cuscuta 12/13

Ilex 13



Ilex Aquifolium. Common Holly

Tetrandria Tetragynia

Gen. Ch. Cal. with 4 or 5 teeth. Cor wheel shaped. Styles 0. Berries with 4 seeds some male flowers which are 4 cleft

Spec. Ch. Leaves ovate acute Spinous

In Woods Hedges & Thickets not uncommon flowering in May the berries ripening in Autumn & lasting thro the Winter — There is a natural Wood of Holly ¾ a Mile from Norwich in the Way to Thorpe the Ground of which is an entire Mat of Lilly of the Valley mixt with Hare Bell & ~~flowering~~ Wood Rush

The Holly Tree is of slow Growth & long duration The Wood is consequently hard & close grained the bark smooth grey abounding in Mucilage & hence by maceration in Water it makes Bird lime. Leaves alternate on footstalks eliptical pointed waved

rigid evergreen shining their margins (except
on very old branches) divided into spinous lobes
In some cultivated Varieties the upper surface
is prickly & the leaves are very liable to be
variegated with pale or deep Yellow - Flowers
white in axillary Clusters either 4 or 5 cleft the
~~4~~ early ones imperfect & generally intermixt
with some that have no germens & these are
always 4 cleft. Stamina spreading alternate
with the lobes of the Corolla — Stigmas 2 spike
Berry scarlet rarely yellow lasting long &
ripened by our summer Frosts

rigid e
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always
with
Berry
very

J. Sowerby del.t Apl. 1794.

POTAMOGETON perfoliatum.

Perfoliate Pond-weed.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* none. *Petals* 4. *Style* none. *Seeds* 4.
SPEC. CHAR. Leaves heart-ſhaped, embracing the ſtem.
SYN. Potamogeton perfoliatum. *Linn. Sp. Pl.* 182. *Hudſ. Fl. An.* 74. *With. Bot. Arr.* 172. *Relh. Cant.* 70. *Raii Syn.* 149.

VERY common in ponds and rivers in every part of England; nor is it, as far as we have obſerved, at all peculiar to a clay ſoil, as Linnæus ſeems to hint.

Every part of the plant, except the flower-ſtalks, is completely immerſed in the water, ſo that it is only to be diſcovered by the ſpikes of flowers about July and Auguſt ſtanding a little above the ſurface, and abounding in whitiſh pollen. It ſhould ſeem the reſpiration of ſuch truly aquatic vegetables muſt be as different from the reſpiration of thoſe which inhale atmoſpheric air, as the breathing of fiſhes is from that of beaſts and birds. Accordingly we find their leaves of an extremely different texture, pellucid like oiled paper (as Haller remarks), very vaſcular, harſh and ribbed, but often extremely brittle. The ſurface of ſuch plants, like that of aquatic animals, is deſtitute of hair or down of any kind.

The ſtalks of this Pond-weed are very long, round, with leaves crowded about the top and branches. Theſe leaves might rather be called ovate than heart-ſhaped, at leaſt in the moſt common appearance of the plant. The petals are of a dull purple, and ſo ſituated that the air eaſily paſſes between them to waft the pollen to the ſtigma. The ſeeds are compreſſed, and ſhining.

March 1st 1797 Published by J.t Sowerby London

POTAMOGETON denſum.

Cloſe-leaved Pond-weed.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* none. *Petals* 4. *Style* none. *Seeds* 4.

SPEC. CHAR. Leaves ovate, acuminated, oppoſite, crowded. Stem forked. Spike of 4 flowers.

SYN. Potamogeton denſum. *Linn. Sp. Pl.* 182. *Hudſ. Fl. An.* 75. *With. Bot. Arr.* 173. *Relh. Cant.* 72. *Sibth. Ox.* 65.

P. ſeu Fontinalis media lucens. *Raii Syn.* 149.

NOT uncommon in ditches, ponds, and ſlow ſtreams, flowering in the early part of ſummer.

It is perennial, propagating itſelf by runners which throw out fibrous roots here and there into the mud, and ſend up round ſtems, naked and ſimple below, forked above, and thickly clothed with numerous pairs of oppoſite ſeſſile ſpreading leaves, both rows of which often incline to one ſide. Each leaf is ovate, lengthened out into a point, ribbed, undulated, entire; we have not found any ſerratures or prickles on their margin, as ſome authors deſcribe. Flower-ſtalks from between the diviſions of the ſtem (the uppermoſt terminal, till young branches are protruded beyond it), ſhort, round, recurved, bearing a ſhort ſpike, or rather a little head, of 2 or 4 flowers, well compared by Cluſius, and by Gerarde after him, to thoſe of *Adoxa*; but it muſt be obſerved that Johnſon, the profeſſed corrector of Gerarde, has erroneouſly inſerted a figure from Cluſius of P. *criſpum* under the ſynonym of P. *denſum*. Every part of the flower is green.

Published by J.s Sowerby London.

POTAMOGETON lucens.

Shining Pond-weed.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* none. *Petals* 4. *Style* none. *Seeds* 4.

SPEC. CHAR. Leaves flat, ovato-lanceolate, tapering down into foot-ſtalks. Spike denſe, many-flowered.

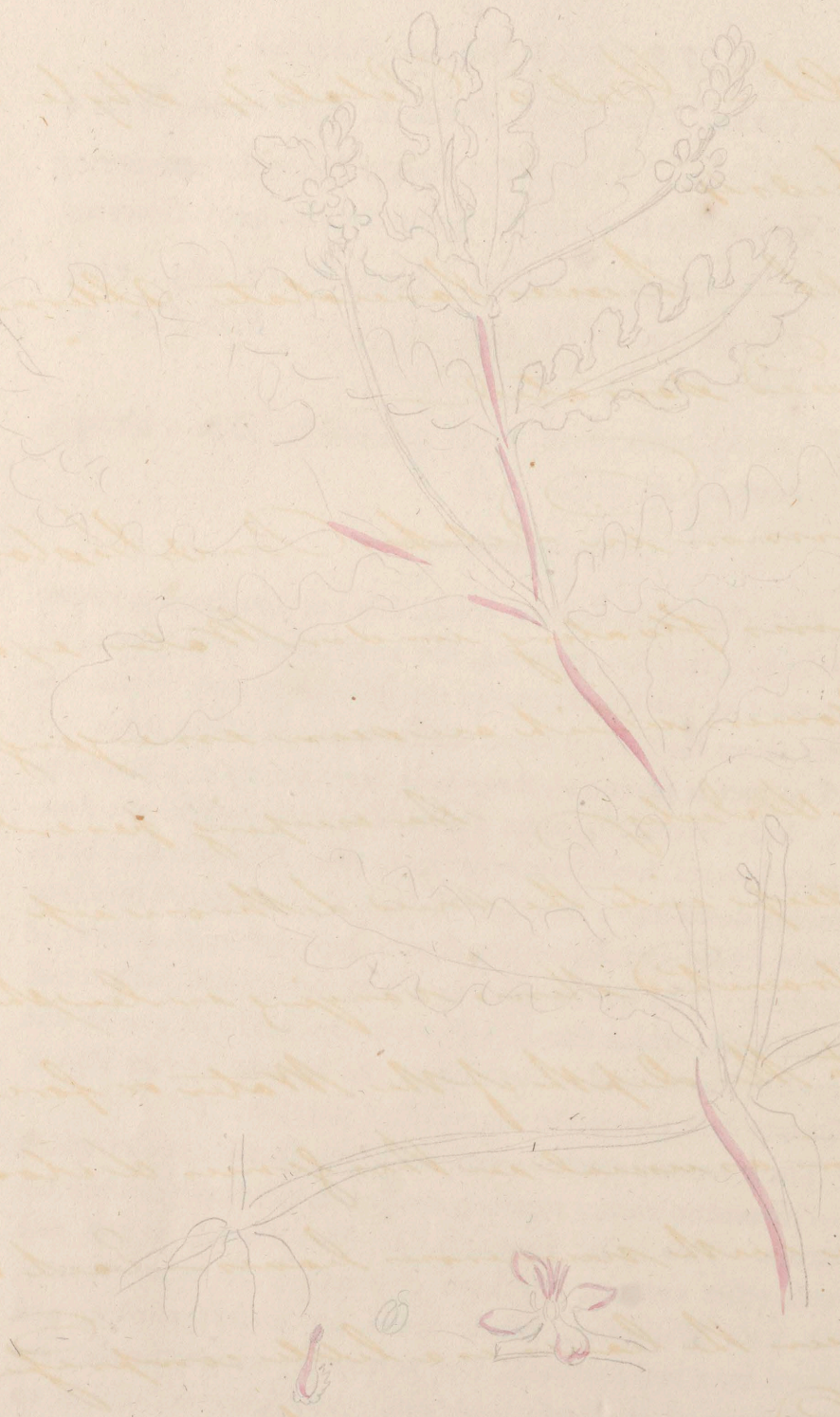
SYN. Potamogeton lucens. *Linn. Sp. Pl.* 183. *Hudſ. Fl. An.* 74. *With. Bot. Arr.* 173. *Relh. Cant.* 71. *Sibth. Ox.* 65.

P. aquis immerſum, folio pellucido, lato, oblongo, acuto. *Raii Syn.* 148.

FREQUENT in ditches, ponds, lakes or ſlow-flowing rivers, chiefly on a clay ſoil, growing, like moſt others of its genus, all immerſed in the water, except the ſpike of flowers, which appears above the ſurface about midſummer, or a little after.

The root is perennial, ſtems long, nearly ſimple, a little zig-zag, leafy, round. Leaves alternate (except where the flowers are ſituated) lanceolate or ovate, entire, a little waved, ribbed, running down into a ſhort foot-ſtalk, and accompanied by a long obtuſe folded intrafoliaceous ſtipula, longer than each joint of the ſtem. The flowers grow in a long denſe ſpike, on a round tumid ſtalk, which ſtands ſolitary in the axilla of one of the oppoſite leaves, and is ſheathed at the bottom by the ſtipula. Flowers dark green, the ſtigma often purpliſh.

There are two common varieties of this ſpecies, one of which has lanceolate leaves, tapering down very gradually to their inſertion. This being figured in the *Flora Danica*, *t.* 195, and moſt other authors, we have repreſented the other variety, No. 2 of Withering, whoſe leaves are perfectly ovate, and placed on a real foot-ſtalk, leſs perceptibly winged by the running down of the leaf: theſe two plants however differ in no other reſpect, and may eaſily be traced one into the other.



Potamogeton crispum — Curled Pondweed

Tetrandria Tetragynia

Gen. Ch. Cal. 0. Petals 4. Style 0
Seeds 4.

Spec. Ch. Leaves lanceolate alternate
waved serrated

Common in Ditches Ponds & slow
streams floating under Water except
the flowers which are seen emerging in
June & July. The creeping perenial Roots
run deep into the Mud & throw up numer-
ous branched Stems varying in length acco-
ding to the depth of the Water or force of the
Stream as usual in this Genus & cloathed
above with numerous leaves — Each space
between the leaves is a little compressed &
grooved on each side — Lower leaves alternate
upper generally opposite all of pale lanceolate
blunttish waved finely serrated pellucid
of a dark green Flower Stalks a little

longer than the leaves—solitary each bearing
a loose spike of 6 or 8 sepils brownish flowers
with a tinge of purple, purple styles & yellow
ish nearly sepils anthers

Mr Curtis observes that Ducks eat the
leaves as well as seeds of this Species &
may therefore be useful when its encreases
to a troublesome degree which is not un-
frequently the case

1797 Published by J.t Sowerby London.

POTAMOGETON compreſſum.

Flat-ſtalked Pond-weed.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* none. *Petals* 4. *Style* none. *Seeds* 4.

SPEC. CHAR. Leaves linear, obtuſe. Stem compreſſed.

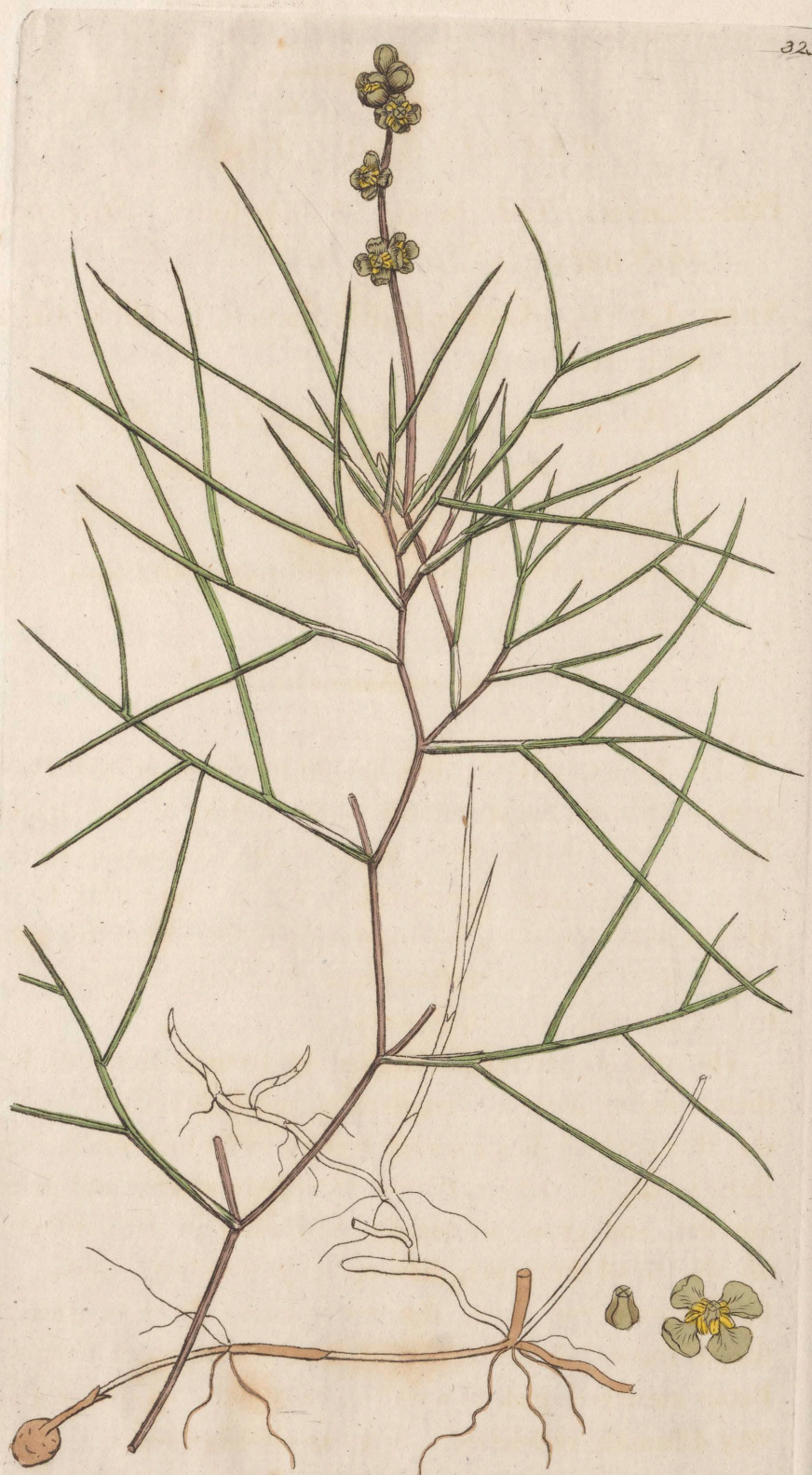
SYN. Potamogeton compreſſum. *Linn. Sp. Pl.* 183. *Hudſ. Fl. An.* 75. *With. Bot. Arr. ed.* 3. *v.* 2. 213. *Relh. Cant.* 72.

P. caule compreſſo, folio Graminis canini. *Raii Syn.* 149.

IN the difficult genus of *Potamogeton* we find it neceſſary to proceed with the utmoſt caution, publiſhing a ſpecies now and then as (we preſume at leaſt) we clearly underſtand it. That this is the true original *compreſſum* of Linnæus, as well as of all Britiſh writers, we learn from the Cliffortian Herbarium in Sir Joſeph Banks's poſſeſſion, that being in the preſent caſe the original authority, Linnæus having afterwards confounded with this a very different plant, which by no means anſwers to the character.

Potamogeton compreſſum is not very uncommon in ditches and ſlow ſtreams about London, and other parts of Great Britain, flowering in June and July, when its ſmall ſpikes of about 4 or more browniſh-green flowers juſt emerge from the water. It has moſt affinity with P. *puſillum*, ſee our Vol. 3, t. 215, but is twice as large in all its parts, and eſſentially diſtinguiſhed by its compreſſed ſtem; neither do the leaves ſpread ſo immediately from the baſe as in that ſpecies. The root is perennial. Stem zigzag, alternately branched, very much compreſſed all the way up. Leaves generally alternate, but the uppermoſt often oppoſite, all exactly linear, obtuſe, with a ſtrong central nerve, and 2 fine lateral ones on each ſide. Stipulæ intrafoliaceous, one to each leaf, embracing the ſtem; the lower ones generally acute and lacerated, the upper ones more obtuſe and entire. Flower-ſtalk ſhort, ſolitary, terminal till the ſtem grows above it.

323.



1. 1795. Published by James Sowerby, London.

POTAMOGETON pectinatum.

Fennel-leaved Pond-weed.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* none. *Petals* four. *Style* none. *Seeds* four.

SPEC. CHAR. Leaves briſtle-ſhaped, parallel, thickly ſet in two ranks.

SYN. Potamogeton pectinatum. *Linn. Sp. Pl.* 183. *Hudſ. Fl. An.* 76. *With. Bot. Arr.* 175. *Relh. Cant.* 72. *Sibth. Ox.* 66.

P. millefolium, ſeu foliis gramineis, ramoſum. *Raii Syn.* 150.

THE Linnæan Herbarium has no ſpecimen of the *Potamogeton pectinatum*; but from the whole hiſtory of this plant in Linnæus and other authors, there can be no doubt of its being what we have here delineated. We are ſure this is what Mr. Relhan intended, having received ſpecimens from himſelf. It occurs not unfrequently in rivers, though, if the ſtream be rapid, it rarely flowers.

The root is perennial, originating from a tuberous lump, then creeping horizontally, ſlender, much branched, as is alſo the ſtem, which floats under water, extending often two or three feet. The leaves, though extremely narrow and pointed, are flat, and grow alternately, ſpreading in two directions, on the ſmall branches, having long ſheathing baſes. The flowers only riſe above the water about June or July, in a ſimple ſpike, but cluſtered two or three together irregularly. Petals kidney-ſhaped, of a dull olive colour. Antheræ yellow, very diſtinctly two-lobed. Stigmas obtuſe, entire.

Nov.r 1 1794 Published by J.t Fowler London.

POTAMOGETON pusillum.

Small Pond-weed.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* none. *Petals* 4. *Style* none. *Seeds* 4.

SPEC. CHAR. Leaves linear, oppoſite and alternate, diſtinct, ſpreading from the baſe. Stem cylindrical.

SYN. Potamogeton puſillum. *Linn. Sp. Pl.* 184. *Hudſ. Fl. An.* 77. *With. Bot. Arr.* 176. *Relh. Cant.* 73. *Sibth. Oxon.* 66.

P. puſillum, gramineo folio, caule tereti. *Raii Syn.* 150.

NOT very uncommon in ponds and ditches throughout England. The root has all the appearance of being perennial (though Linnæus marks it as annual), and ſeveral fibres are thrown out from the lower part of the ſtem, which is round, very ſlender, and alternately branched above. Leaves linear, very narrow, moſtly alternate, but oppoſite under every flower-ſtalk, ſeſſile, ſpreading from the very baſe, and not ſheathing the ſtem, their margin perfectly ſmooth and entire. Stipulæ membranous, lanceolate, inſerted above each leaf, and embracing the ſtem. Flower-ſtalks axillary, frequently terminal till the ſtem ſhoots beyond them, ſhorter than the leaves, each bearing a ſpike of 3 or 4 greeniſh flowers in the middle of ſummer.

The able authors of the *Bot. Arrangement* have in this inſtance not tranſlated the ſpecific character of Linnæus with their uſual accuracy. Neither do we conceive the ſcales mentioned in Dr. Withering's deſcription to be *bracteæ*, or belonging to the flower-ſtalks; it is evident, from an inſpection of the plant, they are real *ſtipulæ intrafoliaceæ*.

Potamogeton 14

J. Sowerby del.t Oct.r 1793.

RUPPIA maritima.
Sea Ruppia.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* none. *Cor.* none. *Seeds* 4, on foot-ſtalks.

SPEC. CHAR. .....

SYN. Ruppia maritima. *Linn. Sp. Pl.* 184. *Hudſ. Fl. An.* 77. *With. Bot. Arr.* 177.

Potamogiton maritimum gramineis longioribus foliis, fructu ferè umbellato. *Raii Syn.* 134, *t.* 6, *f.* 1.

Fucus ferulaceus. *Ger. em.* 1573, good.

A GOOD obſerver may, we believe, find this curious plant in moſt of our Britiſh ſalt-water ditches, eſpecially in the latter part of ſummer, when its pedunculated ſeeds diſtinguiſh it from all vulgar pond-weeds. Mr. E. Forſter, jun. favoured us with this ſpecimen from a ditch by the road from Maldon to Goldhanger, where Ray obſerved it.

Whether the root be annual or perennial is not eaſy to determine. The ſtems are long and ſlender, round, very much branched, clothed with alternate linear pointed leaves, which embrace the ſtem with a membranous ſheath at their baſe. Two flowers commonly ſtand ſeſſile, one a little above the other, on an axillary flower-ſtalk, various in length, and ſometimes coiled, by means of which they alone are raiſed above the water when the pollen is ripe. The antheræ are ſeſſile, burſting at top into two hemiſpheres; the germens ſeem ſcarcely pedunculated before impregnation, but are afterwards raiſed in a wonderful manner from the receptacle, each on its own proper foot-ſtalk. The ſeeds are oval, ſlightly gibbous on one ſide, eſpecially when young. They ripen in Auguſt.

The account in Ray's Synopſis, written by Dillenius, is incorrect in ſaying the flowers (or ſtamina) grow remote from the fruit, and that the latter appears firſt.

Potamogeton marinum moſt reſembles the Ruppia, but even before flowering it may be diſtinguiſhed by its leaves for the moſt part being not ſo membranous, and alſo leſs tumid, at the baſe. We have in the Linnæan Herbarium a ſpecimen from Dr. Hope of that variety mentioned in Lightfoot (*Append.* 1091), which ſeems to differ from ours merely in the greater length of its ſpiral flower-ſtalk, poſſibly having grown in deeper or more fluctuating water. Its ſeeds are indeed ſpotted with red, which we have never obſerved in any other ſpecimen.

Ruppia 15

[136]

RUPPIA maritima.
Sea Ruppia.

TETRANDRIA Tetragynia.

Gen. Char. Cal. none. Cor. none. Seed 4, on foot-stalks.

Spec. Char. . . . . .

Syn. Ruppia maritima. Linn. Sp. Pl. 184. Huds. Fl. An. 77. With. Bot. Arr. 177.

Potamogeton maritimum graminis longioribus foliis, fructu fere umbellato. Raii Syn. 134. t. 6. f. 1.

Pucus tortuosus. Ger. em. 1525. good.

A GOOD observer may, we believe, find this curious plant in most of our British salt-water ditches, especially in the latter part of summer, when its pedunculated seeds distinguish it from all vulgar pond-weeds. Mr. E. Forster, jun. favoured us with this specimen from a ditch by the road from Maldon to Goldhanger, where Ray observed it.

Whether the root be annual or perennial is not easy to determine. The stems are long and slender, round, very much branched, clothed with alternate linear pointed leaves, which embrace the stem with a membranous sheath at their base. Two flowers commonly stand sessile, one a little above the other, on an axillary flower-stalk, various in length, and sometimes coiled, by means of which they alone are raised above the water when the pollen is ripe. The antheræ are sessile, bursting at top into two hemispheres, the grannes seem scarcely pedunculated before impregnation, but are afterwards raised in a wonderful manner from the receptacle, each on its own proper foot-stalk. The seeds are oval, slightly gibbous on one side, especially when young. They ripen in August.

The account in Ray's Synopsis, written by Dillenius, is incorrect in laying the flowers (or stamina) grow remote from the fruit, and that the latter appears first.

Potamogeton marinum most resembles the Ruppia, but even before flowering it may be distinguished by its leaves for the most part being not so membranous, and also less tunid, at the base. We have in the Linnæan Herbarium a specimen from Dr. Hope of that variety mentioned in Lightfoot (Addend. 100), which seems to differ from ours merely in the greater length of its floral flower-stalk, probably having grown in deeper or more fluctuating water. Its seeds are indeed spotted with red, which we have never observed in any other specimen.

Sagina procumbens — Procumbent Pearlwort

Tetrandria Tetragynia

Gen. ch. Cal 4 leaved Petals 4 Caps 1 celled

Spe. ch. Stems procumbent Smooth. Petals

very short

Nothing can be more common than this

humble Weed in sandy waste places neglected

Walks of gardens & the interstices of paved

Courts where its flowers are to be seen in

plenty from May to the end of autumn pro-

vided the plant be not entirely burnt up by

the Summers Sun — Root perennial

Small & fibrous. Stems several procumbent

Smooth tufting root at their joints & constant

ly remaining with their leaves green throughout

the Winter. Leaves opposite & even connate

linear convex beneath entire & smooth

in every part tipped with a minute point.

Flower stalks axillary solitary simple

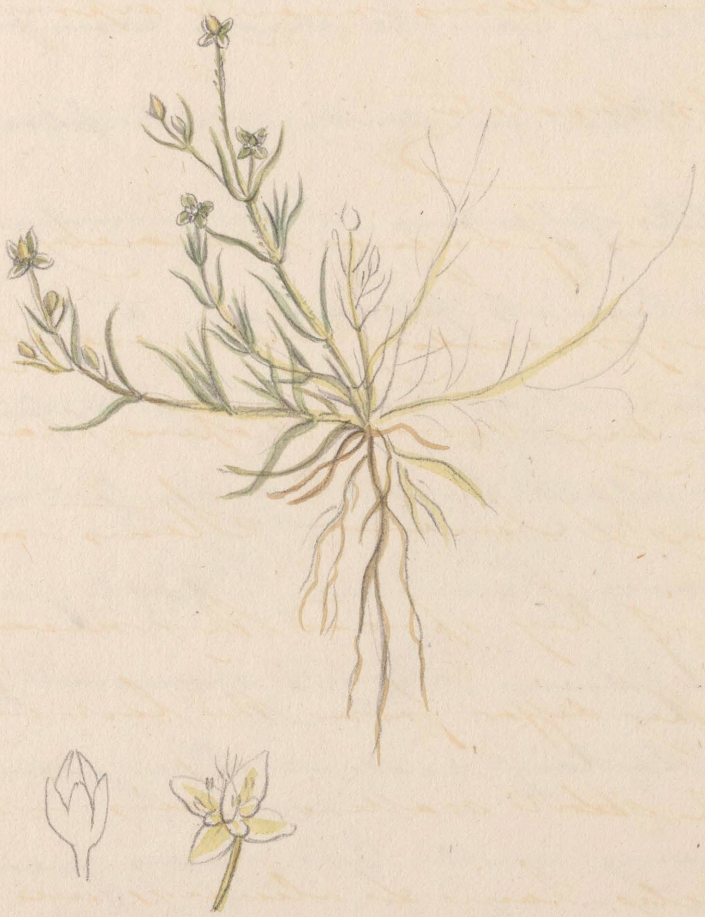
Smooth longer than the leaves each bearing

a small nodding flower — Cal of four

spreading elliptical blunt leaves — Petals

white roundish but less than the length of the Calyx

entire – caps ovate – Seed small reddish
brown of a Wedge like or semicircular Kidney form



Sagina apetala — Annual & small flow

Pearlwort

Octandria Tetragynia

Gen. Ch. — Cal 4 leaved — Petals 4

caps of 1 cell —

Spec. Ch. — Stems nearly upright hairy

petals obsolete

This Species of Sagina is scarcely less frequent than the preceding but generally found in more dry barren & open places flows in May & June — Stems nearly upright or if they spread they never take root — they differ from the last in being cloathed with short scattered hairs — leaves also frequently hairy & always are beset with fringed at the base — Flower stalks slender often but not always hairy — Petals white very minute & often altogether wanting frequently they are notched Seeds generally marked with a black line on their outward Edge but this is not absolute

Sagina erecta — Upright Pearlwort

Tetrandria Tetragynia

Gen. Ch. Cal. 4 leaved. Petals 4 Caps 4 celled

Spe. Ch. Stem erect nearly simple flow Cal. leaves acute Petals undivided

This is a little Plant of considerable neatness & elegance of structure which grows frequently on dry gravelly pastures & heaths among grass flowering in May Mr Curtis has well observed that the fruit of this Plant is that of a Cerastium It is certainly not that of the other Sagina which is joined with 4 entire Valves neither does the habit well agree with the rest of the genus — Professor Ehrhart accordingly made it a new one by the name of Manchia perhaps not unjustly

J.ᵉ Sowerby delt. March 1794.

SAGINA ceraſtoides.

Mouſe-ear Pearl-wort.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* 4-leaved. *Petals* 4. *Capſ.* with 4 cells and 4 valves.

SPEC. CHAR. Stem diffuſe and dichotomous. Leaves ſpatulate or obovate, recurved. Foot-ſtalks of the ripe fruit reflexed.

SYN. Sagina ceraſtoides. *Tranſ. of Linn. Soc. Vol.* 2. 343.

MR. James Dickſon, who diſcovered this plant on the ſandy ſhores and rocks about the Firth of Forth in Scotland, flowering in June and July, laid it before the Linnæan Society in October laſt; and from his ſpecimens, both wild and cultivated, Dr. Smith has drawn up a full deſcription, printed in the 2d volume of the Society's Tranſactions, juſt about to appear.

The habit of this plant is very like that of a Ceraſtium, but the number of the parts of fructification make it a Sagina, to which genus it therefore muſt be referred, as the genera in this natural order are founded on differences of number alone. Mr. Dickſon has obſerved the number of ſtamina to be conſtantly four in the wild plant: truth obliges us to declare we have in cultivated very luxuriant ſpecimens ſometimes found five, though in the ſame flower the petals, calyx-leaves and ſtyles were but four; a ſufficient indication that the fifth ſtamen was an unnatural luxuriance.

The root appears to be annual. Stems proſtrate, dichotomous, hairy in the upper part. Leaves like thoſe of a Ceraſtium, hairy. Flowers ſolitary, on longiſh foot-ſtalks from each diviſion of the ſtem, which foot-ſtalks, as the fruit ripens, become reflexed. Calyx of four leaves, two of which have a membranous margin. Petals ſhorter than the calyx, cloven, white. Stamina ſtill ſhorter. Germen oval. Styles ſhort. Capſule burſting with 8 blunt teeth. The flowers expand only in bright weather.

4a–4a

Sowerby del. 1793

TILLÆA muſcoſa.

Moſſy Tillæa.

TETRANDRIA Tetragynia.

GEN. CHAR. *Calyx* three or four-cleft. *Petals* three or four. *Capſules* three or four, with many ſeeds.

SPEC. CHAR. Stems procumbent. Flowers three-cleft.

SYN. Tillæa muſcoſa. *Linn. Sp. Pl.* 186. *Hudſ. Fl. An.* 132. *With. Bot. Arr.* 132. *Roſe's Elem. (Appendix)* 448. *t.* 2. *f.* 2.

THE moſt dreary ſands are not always unprofitable to a botaniſt, their looſe and fluctuating ſurface being often arreſted for a while, and deſtined to afford ſupport to a tribe of plants whoſe conſtitution is fitted by the all-wiſe Creator to thrive beſt on the meagre nouriſhment they afford. Thus ſome of the vaſt African deſarts are turned to account by means of Meſembryanthemums, Cotyledons, and other ſucculent vegetables, and we have here a production nearly allied to the latter, which flouriſhes on the drieſt ſandy heaths, where few others would live, and at a ſeaſon when Moſſes and Lichens are dried up. Large tracts of the above deſcription in Norfolk, as Drayton, Cawſton and Mouſhold heaths, as well as Brandon heath in Suffolk, are enlivened by its red colour from the end of May to September. Mr. Roſe ſays this plant was firſt determined by the Rev. Mr. Bryant in 1766. Sir Thomas Cullum has found it near Bury, from whence our ſpecimen was ſent by W. Mathew, Eſq.

The root is ſmall, and annual. Stems after a while procumbent, round, becoming quadrangular when dry. Leaves oppoſite and ſtrictly perfoliate, very fleſhy, obtuſe, punctated, concave above, convex on the under ſide, ſoon turning red as well as the ſtem. The flowers are one or two together in the boſoms of the leaves, nearly ſeſſile, and ſometimes accompanied with a pair of ſmaller leaves, denominated *bracteæ* by Mr. Roſe. Calyx of three ſtill ſmaller leaves, diſtinguiſhable by their ſharp points. Petals 3, ovate, acute, pellucid, leſs than the calyx. Stamina and ſtyles ſtill ſhorter. Germens 3, ovate, each producing two ſeeds.

Although this plant is always triandrous, yet as the three remaining ſpecies of Tillæa have 4 ſtamina, we cannot (with Dr. Withering) accommodate the Engliſh ſtudent ſo far as to remove the genus from the fourth claſs, where Linnæus has placed it, to the third.

Tillea 17

Radicola 18

Tetrandria

Radiola Millegrana — Allioni

Tetrandria Tetragynia

Gen. Ch. — Calix many segments

Petals 4 — Caps capsulate 8 Valves

& 8 cells Seeds solitary

Spec Ch. . . . —

In sandy plashy Spots such as the

Toad Rush generally inhabits. This little

Annual may often be found yet it does

seem to be far from a general Plant

not being mentioned in any of our 3 Prin

cipal Local Floras — it flowers in July

& Augst soon ripening the prosperity of its

Old Names. Millegrana & Allioni by the

Multitude of its little Capsules each containg

8 Seeds with which it is laden — Root

small & fibrous — Stem an in or 2 high

repeatedly forked & forming altogether a

Kind of Corymbus — Leaves opposite sessile

or ato entire Smooth — Flowers springing

Solitarily from the forks of the Stem on

little Stalks the upper ones only being terminal

Cal 4 cleft its lobes deeply 3 cleft Petals
white obovate — Stamina about equal to the
Cor — Styles short with capitate Stigmas per-
manent — each combining 2 of the Valves of
the Capsule — Seeds solitary compressed fo-
liated — The remarkable Structure of the
Cal — & the Difference of the Habit of the
Plant — not to mention a difference of no-
minity justify the Seperation of this Genus
from Linum in which we follow Dille-
nius & the present Professor Gmelin

64 closed doors
72 Sowerby plates